THE

FAMILY ECONOMIST;

A Penny Monthly Magazine,

DEVOTED TO THE MORAL, PHYSICAL, AND DOMESTIC IMPROVEMENT OF THE INDUSTRIOUS CLASSES.

VOL. II.

1849.

The Cottage Homes of England!
By thousands on her plains,
They are smiling o'er the silvery brook,
And round the hamlet fanes:
Through glowing orchards forth they peep,
Each from its nook of leaves;
And fearless there the lowly sleep,
As the bird beneath their eaves.

The free fair homes of England!
Long, long in hut and hall
May hearts of native proof be reared
To guard each hallowed wall.
And green for ever be the groves,
And bright the flowery sod;
Where first the child's glad spirit loves
Its country and its God.

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MOTTOES.

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He who promiseth runs in debt.

A punctual man can always find leisure, a negligent one never.

One good head is better than several hands.

Civility is a kind of charm that attracts the love of all men.

Little and often fills the purse.

As is the gardener, such is the garden.

Success is the child of confidence and perseverance.

Sin like a disease is often caught by infection.

A man may buy gold too dear.

God's mercies are as boundless as his being.

Deliberate slowly; execute promptly.

He that is hasty fishes in an empty pond.

Redeem misspent time by industry.

He doubles his gift who gives in time.

He who swims in sin will sink in sorrow.

He who avoids the temptation avoids the sin.

Gold may be bought too dear.

A good character is a fortune.

Prudence saves what passion wastes.

Riches take to themselves wings, and fly away.

Much would have more and lost all.

Be thrifty that you may have wherewith to be charitable.

True economy is something better than stinginess.

It is more blessed to give than to receive.

He who has no shame, has no conscience.

An inquisitive fellow is a spy in disguise.

Fortune sometimes favours those whom she afterwards destroys.

Love labour; if you need it not for food, you do for physic.

Make not your sail too large for your ship.

That man is rich whose desires are poor.

Do well and doubt no man; do ill and doubt all men.

A crown will not cure the headache, nor a golden slipper the gout.

Ignorance is the parent of many injuries.

Imitate a good man, but never counterfeit him.

Hear no evil of a friend, and none of an enemy.

It is less painful to learn in youth than to be ignorant in age.

If you have done a good deed boast not of it.

It is never too late to learn.

Improvement of parts is by improvement of time.

Intemperance is the grossest abuse of the gifts of providence.

Industry and cheerfulness are sworn friends.

Idleness and melancholy keep constant company,

The more a man does, the more he can do.

Method and order are the secret of great workers.

Lying is the vice of a mean mind.

Profaneness is the sign of an ignorant and wicked mind.

Kind words cost no more than angry ones.

Civility is a debt we owe to all.

Overcome evil with good.

Kindness is a powerful weapon too seldom fought with.

By cheerfulness, half the miseries of life might be assuaged.

A fretful temper multiplies and magnifies every calamity.

Love is often extinguished by thoughtlessness.

True politeness is a christian virtue.

If angry, count fifty before you speak, if very angry, count a hundred.

Anger has made many a man a fool.

Be at peace with mankind, at war with their vices.

A man may be a fool with wit, but never with judgment.

To say little and perform much is the characteristic of a great mind.

We confess our faults in the singular, and deny them in the plural.

Honour and esteem a true friend whatever be his fortune.

Great efforts are directed to great ends.

Adversity overcome is the greatest glory; and cheerfully undergone, the greatest virtue.

The best test of a man's principles is his practice.

The soul is man's higher nature.

Pleasures which are merely sensual are soon exhausted.

The coward blusters, the better to disguise his fears.

The mind that is truly noble descends not to mean resentment.

That man who disclaims pride, proclaims it aloud.

The woman who marries for money is not overstocked with delicacy.

Those who cry the loudest have generally the least to sell.

There are two kinds of geniuses, the clever and the too clever.

Parents should aim to make their children not only comfortable, but happy.

The good alone are happy whether young or old.

Children are plagues or pleasures, as their parents educate them.

A child's education should commence when it is a day old.

No man knows what he can do until he makes the effort.

Whatsoever thy hand findeth to do, do it with all thy might.

Every man has one talent, some have many. What use do I make of mine?

Our faculties oft times rust for want of exercise.

Where necessity pinches, boldness is prudence.

Of the dead or absent, speak well or not at all.

The world is a workshop and none but the wise know how to use the tools.

When the heart is full of lust, the mouth is full of lies.

A cat in gloves catches no mice.

He who runs after a shadow has a wearisome race.

Plough deep while sluggards sleep,
And you will have corn to sell and keep.

One to-day is worth two to-morrow.

When the wine goes in, the wit goes out.

The day of payment is always nearer the day of promise than it seems.

Many are willing enough to wound who are yet afraid to strike.

Use your wit as a buckler, not as a sword.

Hasty climbers have sudden falls.

The largest day is sure to have its night.

Base manners will soil the finest clothes.

Live and learn.

Ignorance and pride keep constant company.

Omit no opportunity of doing good, and you will find few opportunities to do evil.

A good book is an excellent companion.

In the greatest difficulties true virtue shines the brightest.

Knowledge like food requires digestion,
Too much feeding of the body starves the soul.

Men in savage life are ignorant of books.

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THE FAMILY ECONOMIST.

SELF-IMPROVEMENT;

In Three Lessons.

LESSON I.

"Wisdom is the principal thing: therefore get wisdom."

The cultivation and improvement of the mind is a subject in which all are concerned, for though there may be persons who pass through life without troubling themselves about learning, yet they are indebted to those who have cultivated their minds, for nearly all the comforts and advantages they enjoy. The proper performance of duties, and the power to make use of privileges, are mainly dependent on improvement of the mind. The subject, it will thus be seen, is one of high importance; it is one at the same time of hope and encouragement, and deserving of earnest attention. Whatever tends to remove or enlighten ignorance, is worthy of consideration; and it is gratifying to know, that notwithstanding the ignorance which prevails, especially among the humbler classes of society, there are many, very many individuals, who have a real desire to cultivate and improve their minds. We propose to come to their assistance with a few short lessons, in which the various parts of the subject will be progressively treated; and, first, we shall endeavour to show the necessity for Self-Improvement.

One of the first and greatest necessities for self-improvement, consists in the fact, that we must all eat and drink, and have clothes to wear. The population of this country increases at the rate of about a 1000 a-day, there is consequently a continual pressing in of a multitude clamorous for the means of existence: mouths upon mouths crying out for food. Hence, if any one be not willing to strive, and strive hard too, to amend his condition, he will very soon be thrust aside and left behind by the new-comers. This may seem hard; but it is so; and it is our duty to make the best of it. In former ages if a man did not like applying himself steadily to work, he could take to fighting, and hire himself out as a soldier, with a pretty good prospect of booty. Or he might set up as a robber on his own account, or go begging among the monks, who were then numerous in the country. But fighting is not now so much in favour as it was; beggars meet with but little encouragement, and if a man take to thieving as an easy way of getting a living, the law lays hold of him, and shuts him up in prison, or sends him out of the country. It is true there are still rogues and vagabonds, but society does not countenance fraud, nor violence, nor knavery, nor lying, nor murder. It is nothing to the purpose to say, that these evils are all still existing among us: as a proof they are not looked upon with favour, continual attempts are made to prevent or put them down. Look which way we will, there is nothing for it but to choose to do our best. While such penalties attach to going wrong, the greater the reason why we should choose to go right.

The reply of some people when self-improvement is recommended to

them is—oh, what's the use? our fathers got along well enough without it, and so can we. But our forefathers lived in caves and woods, and painted their bodies blue—is this a reason why we should do the same? Where would be all the comforts and advantages we enjoy, had no one made attempts after improvement? Progress is one of the laws of our nature; a law which must be obeyed by high and low, learned and unlearned, because there can be no standing still; if not going forward we are going backward.

We thus perceive a grand physical necessity for exertion,—but the moral necessity is not less imperative. What is it that distinguishes man from the other animals? Why can he do things which animals never attempt? Because he has a mind; he has reason. It is true that bees and beavers, and some other creatures, act as though they were able to reason, but we see that the habits of these animals never change, they build and work just in the same way now as they did thousands of years ago. But by the aid of his mind and reason, man is enabled to alter his condition: instead of going naked, living on raw roots, sleeping under a tree, he can procure clothing, till the ground for food, and build a house for shelter. If he be ignorant, he may enlighten his mind with knowledge; and as God in his goodness has seen fit to make man a reasoning being, so does every man's duty become more impressive, more binding upon him to do all in his power to improve the mind with which he is endowed.

As it is the mind that raises men above animals, so it is the cultivation of the mind that raises one man above another. It is a noble thing to improve the mind; and what one man has done can be done by another. We cannot all succeed to the same extent, but it is best to try for the highest prize. He who aims high, is far more likely to hit his mark, than he who either aims low or badly. Ignorance is the parent of nearly all crime and misery: ignorant people do things which those who are better taught never think of, and if they meet with misfortunes, they are quite at a loss as to the proper means of remedying them. Ignorant people may be said to be stuck fast in a bog, from which they will never get out, until they lay hold of the friendly hand of knowledge.

But we often hear the inquiry,—What is the use of knowledge? and there are many persons who believe that knowledge is not worth the trouble it costs to get it. There are few good things, however, which have not been despised or slighted when first brought under notice. How many useful inventions which have added to the welfare of mankind were laughed at when first made known! This should teach us not to be discouraged by ridicule: when once engaged in a good cause, we have only to press steadily onwards. Knowledge opens a man's eyes, he understands what is going on around him; he does not take things upon trust, he finds himself armed with new powers and capabilities. Who are the steadiest workmen? those who have done most to improve their minds. Who are the best husbands and fathers? those who have the best knowledge. We do not mean to assert that goodness and kindness cannot exist without education, for it is very possible for a man to be altogether unlearned, and yet be kind and trustworthy. A man may improve both his mind and his heart, and yet know nothing of what is commonly called learning. But the chances are, that if an ignorant man do right it will be only by accident; the educated man knows how and why he ought to do right, and to avoid evil.

The necessity for mental culture is not a small but a great necessity ; we must not, however, lose sight of the fact, that if the heart be improved as well as the mind, the value of the benefit is increased a hundred-fold. We do not want knowledge just for the mere sake of knowledge, but to make us better and wiser in all we think and do. Most persons like to make profit in some shape, and to this part of the subject we may especially call the attention of the young, it applies equally to girls and boys, to young men and young women. The world is all before you : will you go through it with credit and honour to yourselves, and to your friends—cultivate your minds. Will you leave off living from hand to mouth, and try for comfort and independence—cultivate your minds. Will you look forward with hope and backward with pleasure ?—cultivate your minds. It is not to be expected that we can all rise to be kings and queens, or lords and ladies, but we may all get knowledge and be honest and useful. And this is after all the true way of rising, for if we have these qualities, we are much more likely to be successful and prosperous, than without them. To know every day that we are improving, to have that courage and confidence which will enable us to keep on, to feel that we are adding to our pleasures, is surely something worth striving for. If it be desirable for the young to improve their minds, it is not less so for the middle-aged and the old. It is said that we are never too old to learn, so that here the necessity works two or three ways. The young are required to learn, in order that the good service which they are capable of may not be lost, and the old ought to learn so as to show the ripe fruits of good service and good character to those who are coming after.

Knowledge gives a man foresight, he thinks not only of the present but of the future ; he provides for the coming time ; if one means of living fail him, he can turn his attention to another. Whatever may be said about rights and privileges, it is very certain that the man who is seeking steadily to inform his mind and improve his heart, is much more likely to get all these rights and privileges than one who only talks about them ; he works surely although silently. Looking at the subject in this way, it is hard to say whether the necessity for improving the mind, or the pleasure of so doing, is the greater.

The necessity may be considered in another light.—In this country there is a continual advance of society, a continual rising upwards : artisans become employers, employers grow into wholesale traders or merchants, merchants rise into magistrates, or get into parliament—and thus they go on, from one rank to another. Now, if a man does not make up his mind to march with those who are going forwards, he will of course be out-stripped by more active competitors. Most persons have a desire to better their condition ; we see some go about it in a business-like way, with them every step tells, there is so much gained ; while others are quite at a loss, they have no clear notions of what it is they strive for, and waste their time and labour in uncertainty. The persevering meet with little helps and encouragements on every hand ; but the slow and unwilling fancy that every thing is against them, they neither know what to do nor how to do it. The only hope for such people, is in mental or self-improvement.

Knowledge, we are sometimes told is often abused : the fact is not to be denied, but we ought to get knowledge nevertheless. Many medicines are poisons, but that does not prevent us from taking physic when we are

ill ; neither does the occasional circulation of base coin prevent us from taking good coin when it is offered to us. We recommend all our readers young and old, to give the matter a fair trial, and if they do not achieve all the success which their hopes have led them to expect, on one point at least we are certain—the possession of useful knowledge, of the knowledge that elevates the mind, and warms the heart, will always be a source of happiness, to strengthen us in adversity, and counsel in prosperity.

CATHERINE PALMER ; A STORY OF NEW YEAR'S EVE.

Snow had fallen for nearly a whole day : at length the feathery flakes danced carelessly and more thinly about in a clearing atmosphere, and a still winter evening followed. Before night-fall, which comes early on New Year's Eve, you had just time to look abroad over the wide English valley of Girsdale, and to see the surface of the earth and its vegetation covered, far and near, with a white sheet of crystallized water. The horizontal rays of the winter-sun shed a quiet light over the scene —the trees and hedges, bare of leaves, now bore fantastic borders of snow-work —the sparrows made haste to find nooks under the thatch, and their twittering was nearly all you could hear, for the peasant's foot-fall and the rumble of his cart were inaudible

The sun sank : but many a blazing log was piled high, and under roofs laden with snow, and in houses almost inaccessible that night, there was sunshine of the heart. It danced in the eyes of youth, and awakened joyous laughter among the old. Which is the gladdest to see—the radiance of youth, life's morning ; or the happiness of hale old age, life's evening ? Happy to see both, to see old and young forming a chorus of merry and grateful hearts.

But, in the nature of things, could every hearth be glad that night ? What an amount of pain, mental and bodily, how much want, how much cold must fall to the lot of fellow-creatures somewhere every New Year's Eve ! The log had often blazed high on Ambrose Palmer's hearth, and on the blithe faces of his family group. Not so to-night. The snow-solitude without, does not here make the interior gladsomer by contrast : the desolation out of doors is in keeping with the heart-solitude within.

A large old-fashioned cottage stands alone, with great gable ends, and far overhanging thatch, which appears doubly lowering from the superincumbent load of snow. An elderly rider wades through the snow in the lane, his horse's footmarks being the first to mar the even white surface as it appears under the glancing rays of the moon. It is the doctor. Kind old man, he has left his own family snug and warm at the fireside to visit a patient far off. They are happy at home—and he, ay, he is happy too, as happy as they, in the performance of his duty, if it do consist in riding five miles to a sick bed in such a night ; for his duty, his practice, has become a second nature to him. He carries a boy on the horse before him. It is young Adam Palmer who was despatched for medical aid in the earlier part of the day, before the snow was deep. The old man carries him back, and takes care to keep him warm too—the poor boy's heart ready to burst between thankfulness for such consideration, and grief for the occasion of his visit, his mother's illness.

Ambrose Palmer, the father, was a mason's foreman, and now and then he undertook building-work on his own account. In the rural district, in which his lot was cast, he frequently worked at distances of ten, fifteen, and twenty miles away from his habitation. He was twenty miles off now, engaged in matters connected with some job, for the weather was not the most favourable for mere building. It was Friday, and he was not to be home till Saturday night. He had left his wife and family, all apparently as well as ever they had been in their lives, on the previous Monday morning. On the Thursday night, Mrs. Palmer was seized with violent and continuing pains. She was too ill to direct well or coolly what should be done for herself ; and her daughters Catherine and Mary, the first a girl of fifteen, and the second of thirteen years were her only nurses. The wind was cold

and snow had begun to fall, and the nearest friend's was a mile off. That friend was old Esther Gray, a kind-hearted, self-devoting, old maid. When the good old doctor arrived, he found Mrs. Palmer labouring under an acute attack of internal inflammation. He directed Adam to find shelter for his horse, beside the cow, and determined at least that the means within his power should be tried. But poor Mrs. Palmer died at twelve that night.

There were nine children. The eldest three have been alluded to by name. Their father was from home. They had loved their mother dearly, and she, in the midst of life and health, had just been snatched from them. They could hardly realize the idea—Dead! Mother dead! Gone! Their infant hearts almost burst, and their infant wailings joined together in the chorus of wounded nature.

Poor single-hearted old Esther Gray, she could bear it ill to see the 'sweet innocents' so convulsed with grief. And Dr. Thompson, he too was busy crying and sobbing in a corner.

This was their New Year's Eve. These were the sounds which greeted the New Year in Ambrose Palmer's cottage.

"Come, come, Mrs. Gray," exclaimed the old doctor, clearing his throat and assuming a determined air to keep himself from further weeping, "take these poor things to bed—off—begone." Recollecting himself, he requested them all to kneel. He threw some incoherent sentences together in the form of a prayer. Incoherent! but never was a more sincere prayer offered up, and never were the *amens* more directly from the heart. He then desired the children to retire.

Esther hurried the children off, and Catherine, Mary and Adam, went with her after many a lingering look, and many a return to touch only the hem of the sheet of their departed parent. But as the doctor sat in his chair, and watched the embers, he heard the wails and cries of the poor children all through the night.

It is unnecessary to dwell on such agonizing scenes. Such was New Year's *Eve* to the children, and it may be conceived what the New Year's *Day* was to the father when he came home.

* * * * * *

The poor mother was under the ground in the church-yard — the spring had brought out grass-blades over her grave, and the shrubs which the children had planted were budding. Dark shadows still flitted now and then over their minds, as clouds across the face of the summer-sun. Many a pilgrimage would the children make, hand in hand, to the shrine which held their mother. The very little ones would prattle and talk low there.

* * * * * *

Ambrose Palmer pursued his work as before, and the domestic cares devolved on Catherine. Poor Kate, she had six children under her, herself but a child. She resembled her mother much, both in information and in character, but had the advantage of a better education, an education conducted at a very respectable kind of village-school, a mile or two off, and which was only now interrupted by the catastrophe which has been recorded. Poor Kate, she resembled her mother, and her mother with all her genuinely female and excellent attributes, had some failings, although they certainly did lean to virtue's side. We have seen how much her children loved her. It is not always the properest parent, any more than the most correctly-acting child, that is the most beloved. Let a parent be now and then unreasonable, but always affectionate, let a child err, but still love and submit the heart to the parent, and the temper in the one case, as well as the error in the other, is forgotten. Here there is no moral to be drawn in favour of some degree of imperfection. The force of genuine love and affection is all that is shewn. If these exist, along with good judgment and good conduct, so much the better. Mrs. Palmer was a woman without method, and without rule, but with a warm heart. She by no means distributed even-handed justice among her little flock. If Tom and Harry quarrelled, and Tom were clearly in the wrong, ten to one the mother's decision was in favour of Harry. Tom was offended, but still his instinct told him, that his mother did not love him less, but only Harry for the time being, more. The cottage might be said to be in a continual uproar—children laughing—children crying—children playing—children fighting. Poor Mrs. Palmer sat in the midst, beating this child, consoling that, talking to baby, and declaring that her life was one constant scene of trial. If

she could have been suddenly transmogrified into an old maid, she in fact, though she did not know it, would have been the most miserable of mortals. Saturday night brought a calm; for the father exercised a different power over the youngsters, but on Monday the uproar re-commenced. The children were good-tempered and affectionate, but disorderly and insubordinate. They had not been trained to take good care of their clothes. You might see one with a stocking about her ankles, and another with no shoe or stocking on her foot at all. They had plenty of things in a rough kind of way, but were a pinafore, a towel, or anything else wanted, the whole domestic arrangements, if there could be said to be any, were overturned. In fact, everything in the house seemed disarranged.

Such was the school in which Catherine Palmer had studied housekeeping, domestic economy, and the nurture of children, and now these various duties fell to her lot. What could she do but persevere in the course her mother had pursued before her? And if the children had been regardless under the lax rule of the mother, what were they to be under the domination of the eldest of themselves. They loved one another, certainly, like young good-natured savages. They could slip off occasionally in detachments to the church-yard, and cry themselves blind over their mother's grave, and then return home to their vexed gambols. Poor Catherine fought and struggled. She too beat this one, patted that, and cajoled a third. If the children behaved ill during the life-time of the mother, they now behaved ten times worse. Kate's young head was often distracted, and her young heart often well-nigh broken. The father would come home on Saturday night—mournfully now, not so blithely did he pace the lane homewards with his hammer and trowel as had been his wont—and he would draw his eldest to him, and say, "Well, Katey, and how have you managed this week?" and Catherine would wipe her eye and say, "pretty well, dear father, the little ones are very noisy, and very tiresome sometimes, but they will all grow better as they grow older." The father perceived her difficulty, but was not aware of its extent. He would pat her cheek, and speak kindly and encouragingly to her, and when she looked up at him so like her mother, he would let a tear of grief for the one, and of love for the other run down his cheek.

It must be observed, that Mary Palmer was the minister and assistant of Catherine, and that though often mixed up in the scrambles of the juniors—she was still herself but a child of fourteen—yet she, in the main, supported her sister's endeavours. As for Adam he found some employment at the neighbouring farm, and returned but in the evenings.

When Catherine had gone to school, she had often met a lad, named John Hesketh, and a boyish and girlish attachment grew up between them. Such an attachment had never been spoken of on either side in plain words, but it was tacitly confessed, and explicitly enough understood. John was a yeoman or small farmer's son, whose family was intimately acquainted with the Palmers. He frequently, that is, as often as he had an opportunity, treated Catherine to a seat in his cart as he drove to the village, and they went to the same parish church. Circumstances, perhaps in most cases, break off these juvenile predilections, but they are often more sincere and romantic than the maturer affections which succeed them. Now John ventured to look in on Catherine one day, as he passed, or pretended to pass, and the circumstances in which he found her, did any thing but conduce to elevate his lady-love, or his sweet-heart (which you please) in his estimation. They say that lovers are blind to the faults of those they doat upon; but Catherine felt, or thought at least, that she had forfeited John's esteem for ever. She was slatternly in her dress, her hair was uncombed, her fair face unwashed. Chairs were upset around her, and a dish or two broken. The children had burst out into the infantile savagery to which they occasionally gave way, and had proceeded to further extremes than usual. Catherine looked like the mistress of the orgies. She sobbed in bed that night, and thought she had forfeited John's love for ever: she felt bitterly lowered in her self-esteem.

Another occasion of pain followed this one. Mary staid at home with the mere children, while Catherine went to pay a visit, a mile off, at an old friend and neighbour's of the family. The mother used

to go there now and then. Everything in the house was so neat, everything was so clean—everything was in its place, while everybody, both old and young, seemed so well-behaved and so orderly, that poor Catherine could not help contrasting this household with her own; and again bitter tears flowed from her eyes during the quiet night.

New Year's Eve came round again. An obvious train of thought was called up that night. Tears for the dear parent flowed, and when the mind was calm, it reviewed the last twelvemonth, and was dissatisfied. New Year's Eve fell on Saturday this time. The father had mingled his woe with hers, and had spoken kind words of encouragement and comfort. But Catherine was now almost a woman, and adversity had made her something quite beyond her years. She rose on the first day of the year in a serious and collected mood. In church, the congregation were admonished at the beginning of a New Year, to review the past and to reform the future. "People," said the preacher, "go on from year to year without thinking what they are about, and when they do think for a moment or two on some such occasion as the present, their thoughts are apt to be so trite, that they remain unproductive of effect, passing through their minds, but not altering them. Now, I would have you all," said he, in homely phrase, "to turn yourselves, as it were, over and over and to see yourselves from different points of view. Every one of you has some idea of a better state of heart and conduct that he would desire to attain to. I tell you that every one of you may attain a better state, if he set about it with a will, and is favoured with the blessing of Him who does not refuse His highest gift to those who seek it in earnestness and sincerity." The discourse again in the afternoon, was on the power of love, how, in all circumstances whatever, it operated better than bad passions, and how it was the duty of every one to carry loving-kindness into the domestic, the social, and into all the relations of life.

Poor Catherine, thou art pondering!

There are few natural mental changes sudden. Sudden professed conversions, are not always lasting, and we shall find no sudden change in Catherine, however sudden and forcible a desire may have been awakened in her to attain to a higher standard in the performance of her duties. She tried little Peter with soft words, and little Jane with gentle blandishments, and in truth she did see a marked effect. Still her temper was sorely tried, and sadly ruffled. She began every Monday morning to practice a new system, and often her heart failed her when she met with disappointment. One thing was in her favour, which she was unconscious of, she was just at a period of life, when a change in character may take place more naturally than at another time. She was leaving girlhood behind, and entering on womanhood. A mellower and a richer loving-kindness was naturally developing itself, at the same time with a greater force of will and strength of character. Still she had her rebuffs, and was thrown back. She felt, however, that her efforts were producing good effects on Mary and on Adam, who began to aid her, and in some degree on the others. She began to find that the house was a little tidier, and things in better order, and more frequently in their places. She contrived to get such of the children as went to school oftener sent away in time, and with clean faces and pinafores.

Old Esther Gray was talking querulously one day about her ailments, and said among other things, that the doctor had been saying that the complaints that were long in coming were long in going, and did not go away without some 'backenings.' Catherine pondered on this too, and gathered a hint from it.

Next New Year's Eve found an amendment. The next again, found a further improvement; and Mary Palmer now laboured as anxiously as her sister in the good work. On the third, Catherine was not ashamed to see John Hesketh, and the latter was astonished to see his old love so discreet a mistress of a household. He remembered his former painful impression, and wonderingly contrasted it with his present one. He was now a man. His juvenile attachment was re-awakened and confirmed. Their love was now confessed, and they were betrothed. On the fifth New Year's Eve, Catherine was Mrs. Hesketh, and had a house of her own—which she did not manage badly. Mary succeeded her at home, in the government of the children and the house, and

succeeded pretty well, every day improving.

By-and-by Catherine had a family of her own. She was always spoken of as a discreet, sensible, and exemplary wife and mother, and was even sometimes said to be 'a good manager' for a large family.

Many a happy night the family had. Many a happy New Year's Eve; but never a merry one.

"My dear little ones," she would say, "to-night my mother died—she was as dear to me as I am to all of you—be happy my poor things, but do not romp, for my sake, do not romp this one night."

And the children would gather round her, and caress her, while she thought of the past, and while her gentle eyes swam in tears, and no discordant word would they speak that night to grate on the musings of the mother.

CHRISTMAS ACCOUNTS.

Every one knows but too well the great pressure which has existed of late for money, and which has scarcely abated at all; and as the time is now come when long standing accounts are expected to be paid, the pressure will certainly not be less than it has been, unless persons having the means—heads of families of property—come forward and pay all that they owe promptly. 'Merry' as people may appear at Christmas; crowded with good cheer as most tables are at that period, many an aching heart beats under the outward appearance of happiness. Christmas-day is also rent-day, and the phantom of the formidable landlord looms through the steam of many a kitchen reeking with culinary preparations. And, after Christmas-day, how many bills and claims and payments of various kinds present themselves in long array, all of which have to be met or arranged—paid, or, if possible, put off—or ruin is the consequence. Thus, the past Christmas may be the last one which many a family that has hitherto kept up its respectability may ever enjoy again. The credit given by retailers is always far too long. They cannot any of them purchase goods of the wholesale houses at from 12 to 18 or 24 months' credit; few of them at more than from 2 to 4 months. How absurd, then for retailers to open accounts to consumers at a longer credit than they can obtain themselves! Yet this is done in this country to a frightful extent, and it accounts more readily than any thing else will do for the perpetual state of embarrassment in which small traders are involved. They give too much and too long credit. Yet the man who wants coats or hats or shoes thinks it very hard if those who supply them press him for their money after giving him six or eight or twelve months' credit—aye, and many of them play off fine airs, threaten to take away their custom, and talk about the assurance and impudence of tradesmen who presume to take liberties with their superiors because they owe them a paltry sum of money; or, in plain English, because they ask for their own. If there be assurance or impudence in the case it is in those who have the assurance to run up long bills, and then cannot or will not pay them. No real gentleman—that is, no right-minded man—will ever remain a moment longer in debt than he possesses the means to pay. There is nothing makes a man more contemptible in his own eyes, if he have any moral feeling, than that of owing money where he cannot pay it. He feels that he is in a false position; that, instead of ranking with the 'respectables,' he ought to take his position among the meanest classes of society; for he is walking about under false colours; in other people's clothes; feeding surreptitiously at other people's tables; engaging other people's furniture, houses, or lodgings: and that, if he were to act like an honest man and pay for what he has, he must dress less; eat more humble food; and dwell in the back streets; and he would then, if he paid his way, be a far more respectable man than the scamp who wilfully incurs debts which he knows at the time he cannot pay. There are persons also, who, with abundant means, pay their tradesmen's bills reluctantly, begrudgingly, ungraciously, carping at every item—grumbling out something about large profits, (large profits, indeed, in these competing days!) and how much

cheaper things can be bought here, and better there ; who lay claim to a discount after taking several months' credit, though the agreement at the time was for ready money. This may appear incredible ; but we know it to be the fact. This description of debtors is the most insolent and overbearing of any on earth. They know they can pay, and they take care that you shall know it too. There is another set of persons who like to keep a good account at the bank, ready to invest it in any way that offers advantages. You might almost as well ask some of these persons for their teeth as for a cheque on their banker. The thrilling delight they feel in paying in, is not so great as the horror they have of drawing out. The bare idea throws them into a cold perspiration. In whatever humour before the application for money, the necessity of drawing out a cheque immediately renders them as 'cantankarus' as a dog with a wasp in his ear, and 'There's your cheque, sir,' throwing it at you, whilst the lower lip is protruded an inch from the teeth, is the most to be expected from a gentleman of this calibre. The tradesman picks the cheque up with trembling yet joyful hands, for it will enable him to meet the bill which falls due to-morrow, and he hurries out of the house with feelings akin to those of the dog who has snatched a steak from the kitchen dresser and finds himself pelted with pots and pans and hot water as he scampers up the area steps. No such thing as personal tyranny exists under our form of government ; but there is abundance of it in social and domestic life ; and in no case can greater tyranny be exercised than that of keeping people out of their money when it is due ; for if the tradesman cannot keep his payments good, ruin stares him in the face ; he will probably be sent to jail, and his wife and family to the workhouse. An infinity of good may be done by the higher classes at this season, not only in paying all outstanding accounts, but in paying them promptly or with the least possible delay.—*Brighton Herald.*

HOUSEHOLD ECONOMY—WINTER CLOTHING.

WINTER is the season for warm garments. This is admitted on all hands. The mercer's shops at the present season display, not muslins and gauzes, but furs and woollens, from the costly cashmere to the humble merino, with every variety of cloaks, hosiery, flannels and blankets. Among the customers, we see the rich furnishing themselves with every seasonable comfort that money can command—the benevolent, considering how best to lay out a portion of their surplus for the supply of the destitute—the thrifty, gladly producing the little sums they have had the prudence to lay by, and exchanging them for some comfortable winter garment for themselves, or their family. It is a pleasure to see people furnishing themselves, or others, with suitable comforts. It is painful to observe any in shivering scantiness cast a longing eye at those needed comforts, which they have not the means of procuring. Perhaps a useful hint may be furnished to each of these classes :—

First, leaving aside for a moment the question of expense, we shall consider what is best to be worn by those who are able to wear what they please. To begin with the feet. It is impossible to preserve health unless the feet are kept comfortably warm. That is, unless the blood properly circulates to the extremities, and the nerves of the skin, which are the seat of feeling, are kept in proper working order. Good food and active exercise, contribute largely to produce a right state of things in this particular ; but clothing, also, has an important office, that of preserving and promoting the vital warmth within, and screening against cold and damp from without. Woollen-stockings contribute much to comfort, and should be universally adopted during the winter. Even silk are much warmer than cotton, because silk is a decided non-conductor of heat. Many persons who can afford silk-stockings wear nothing else, winter or summer ; but wool being thicker than silk, is generally preferable. Not, however, what is called a thick stout texture, nor one formed of a heavy material. The fine light wools,

as Lamb's-wool, Angora, Thibet, Vienna, or German-wool, are much better than worsted ; and the texture should be rather loose than close. Other things being equal, knitted stockings in the matter of warmth are greatly superior to such as are woven. They do not, however, appear quite so fine, and, therefore, are little adopted. But those who know the comfort they afford, would not readily be induced to abandon them. They are especially adapted for the wear of children, and of persons in the decline of life. Persons in youth and middle-age, are more robust, and *will be* more hardy, though *they* sometimes suffer for the imprudence of sacrificing comfort to appearance. Those who persist in wearing cotton-stockings through the winter, should, at least, wear under them a thin ankle-sock of lamb's-wool, or of wash-leather. A piece of brown-paper cut to the proper size and shape, and worn as an inside sole, takes scarcely any room in the shoe, and adds greatly to its warmth. Boots are sometimes found useful in promoting the circulation, and so keeping the feet warm. Whatever kind of shoes be worn, they should be made to fit comfortably, and should be sufficiently thick to resist damp. Snow is particularly penetrating. For walking out when snow is on the ground, it is well to have an under sole of coarse felt, which is a protection against slipping, as well as a great preservative against damp. A sole of cork, or of knitted wool, within the shoe, is comfortable and useful ; but it is probable, that the newly introduced article, gutta percha, will supersede these contrivances. It is found most effectually to resist damp, and its cheapness, as well as its utility, and its adaptedness to old shoes as well as to new ones, recommend it to the adoption of those who cannot avail themselves of expensive expedients. During the winter season, whatever shoes have been worn abroad, should be changed on coming into the house. They may not feel damp, but after a time they will strike a chill into the feet, which may continue cold for hours, without the cause being suspected. Severe colds are often thus originated. In travelling, it is a prudent and comfortable precaution to wear over the usual shoes an outer boot of woollen cloth or of thick lamb's wool knitted. Woollen gaiters also are a great protection. Elderly people, and those who are liable to rheumatism, find great comfort from knee-caps, knitted with thin lamb's wool. If night-socks are worn, they should be loose and large, that they may not in any degree cramp the feet. They will then slip off when the feet or the bed-clothes have become thoroughly warm.

Flannel next the skin, is an important preservative against cold. It not merely acts as a non-conductor of heat, but gently stimulates the skin, and assists it in throwing off superfluous matters. Flannel is a most important article in the dress, both of infancy and age. The three rules given by the celebrated John Hunter for the rearing of healthy children were, 'Give them plenty of milk, plenty of sleep, and *plenty of flannel.*' In addition to all the usual appliances, a band of fine flannel should be worn round the body of an infant, for at least six months, and will be found one of the most effectual preventives of bowel complaints. For adults, a broad band of flannel round the loins, or a long inner waistcoat of the same material, is found to be extremely serviceable as a preventive against epidemic complaints ; and as many persons will remember, was strongly recommended for general adoption during the apprehended prevalence of cholera. Persons who have in any way to take violent exercise, so as to produce frequent and copious perspiration, should invariably wear flannel next the skin. So should those who are frequently troubled with cough, or tenderness of the chest, or who are liable to rheumatic attacks, or general debility. All elderly people require the warmth and nourishment which flannel affords. For wearing next the skin, thin flannel should be chosen. The real Welsh is the best for the purpose. A very delightful article may be substituted, viz., thin wool knitted. Berlin wool is the best. It is rather more expensive than flannel, but much more durable, and if properly washed, does not shrink or thicken. Flannel worn next the skin should be taken off for the night, and spread on a chair or horse, that the moisture may pass off. It was a notion formerly, that new flannel alone possessed any virtue, and people would wear an under waistcoat for weeks or months, without washing. This was a great mis-

take. Whatever is uncleanly, must be unwholesome. It is true, that woollen goods are impoverished by frequent washing, and it may be properly obviated by having two articles to wear on alternate days, on the intermediate days exposing the one laid aside in the open air, or in the influence of a fire. They may thus be kept fresh and sweet for many days ; but when they begin to look soiled with perspiration, they should certainly be washed. Some persons prefer wash-leather to flannel for wearing next the skin. This should be changed and purified in the same manner. Some persons who are very tender on the chest, find benefit from wearing a prepared hare-skin. This requires frequent airing and brushing. Those who are liable to bowel-complaints, should also wear flannel-drawers. In general, it should be borne in mind, that a little flannel next the person, is of more avail in preserving health than a large quantity of outer furs and mufflings.

English women, in general, do not wear enough of woollen garments. The fashions just now happen to favour their making a somewhat more bulky appearance than was admissible a few years ago ; but fashion is a fickle dame, and may quickly turn round and demand the scanty flimsy vestures, which a few years back were undoubtedly the cause of many deaths by consumption. Therefore, it is well to take the opportunity of giving a word of caution. We sometimes laugh at the figures of Dutch women in pictures, and a clumsy English woman is often spoken of in ridicule as ' square, Dutch built.' But it is worth notice, that although the Dutch are no strangers either to damp situations or severe frosts, yet coughs, colds and consumptions, are rare among them : alas ! they are not rare in England. We cannot personally vouch for the fact, but have met with the statement in a medical work of some celebrity, that the Dutch women wear, at least, half a dozen full woollen petticoats, while many English women never think of exceeding one of flannel, and one of calico above it ; and to this is, in a great measure, ascribed the difference in point of health. Certain it is, that plenty of warmth about the loins and limbs, is greatly conducive to health, and it is a pity that health should be sacrificed to the vanity of displaying a slim figure. We hope some of our female friends will take the hint, and furnish themselves with the additional petticoats, flannel, merino, or the lined-skirt of an old silk or woollen dress, or lamb's-wool knitted.

Instructions for Knitting Winter Garments—Under Waistcoat.—Pins, number nine or ten. Single Berlin wool, or the wool called ' Lady Betty,' the thinner or thicker sort, as may be preferred. From thirty-six to forty-two stitches, will be the number to cast on for half. Knit six or eight plain rows. After that, in every stitch, turn the wool twice round the pin. This method does not increase the number of stitches, but makes the work soft and elastic. In this way, work sixty or seventy rows to the depth required. Then six plain rows. Next row, knit ten stitches and return, on these ten stitches work from twenty-four to thirty rows for a shoulder-strap. Next, after working the ten stitches, cast on additional to them the same number as were left on the other pin. This is for the second half. Work six plain rows. Then as many rows, with the wool twice round the pin, as will correspond with the other half ; the same number of plain rows as at the beginning, and cast off. There yet remains one-half top to cast off, and to work a second shoulder. Fix a loop of wool in the tenth stitch of the row in which the shoulder was begun, and with that, cast off all the top stitches but ten, on to which work the second shoulder, cast off double with ten of the stitches, and cast on for the second half. The sides are to be sewn up, leaving two inches at bottom not sewed, and seven or eight inches at top for an armhole. If a sleeve is desired, cast on forty or forty-four stitches, work a few rows plain, afterwards wool twice round the pin. After the tenth row, begin to widen, making an additional stitch by knitting the second or third loop between the stitches at the beginning of the row. Widen two rows ; knit two without widening. When the sleeve is wide enough, and nearly deep enough, cast off ten stitches at the beginning of every row. This is a most pleasant waistcoat for a grown person, or for a child the proportions being reduced to the size required.

Full-Sized Jersey with Long Sleeves.—Wool as above. Pins, number

seven or eight, cast on seventy-five. Knit one row, purl one row, so as to make it appear like stocking-work, but in the purled row, knit the first four and last four stitches to form a selvedge, and prevent curling; do that throughout the body; work seventy rows. Lay this piece aside on a spare pin, and work a second piece exactly like it. In the seventy-first row, knit twenty-five stitches, then lay the other piece in front of that in which the row is begun, and knit the two together, by taking up one stitch from each pin and knitting them as one. Fifty stitches will come to the end of the first piece, and leave twenty-five of the other. Knit them; and then go backwards and forwards on the whole hundred. This is the front half of the Jersey. When nearly long enough, work a few rows ribbed, and cast off. For the back.—Pick up three of the cast on stitches at the outer edge of the top. Knit them; cast on to them ninety-four more; then knit the three from the outer edge of the other half front, thus making up a hundred. On these work a sufficient depth for the back, ending with a few ribbed rows. 200 rows is a good depth. To finish off the top.—Fix the wool in the third stitch knitted, which joins the back to the front at the shoulder. Knit three stitches from the back. Return and knit three more from the front. So proceed taking three more at the end of every row, till a gusset of sixty or sixty-six stitches is worked. Work a similar gusset on the other side. Then go along the right hand gusset, the back, the left hand gusset, and twelve stitches of the left hand front. Return and work twelve from the right hand front—return and work twelve more from the left hand front—return and work twelve more from right hand—return and finish the row to the left hand; then a whole row to the right hand. Next row reduce the stitches one-third, by knitting two as one, every other stitch; a few plain rows and cast off. Those who are good knitters, may work two button holes in the collar, by casting off five or six stitches in one row, and casting on as many in the next at the part where one front laps over the other. For a long sleeve, cast on thirty-three or thirty-six; rib a few rows. Then knit one row, and purl one row. Having knit twenty-four rows straight, widen at the beginning of every third row, till the piece is long enough to reach the elbow, then widen at the beginning of two rows, and work two without widening, till it is sufficiently wide, and nearly long enough to reach the shoulder. 110 stitches is a full width. Cast off ten at the beginning of every row. Sew up, and sew in the sleeves, also the sides, leaving about three inches at bottom.

Infant's Band.—This is merely a straight piece of ribbed knitting, about five or six inches deep, the lower half worked on pins a size smaller than the upper, the better to adapt itself to the form of the body. The suitable wools are Berlin, (single) Lady Betty, or embroidery worked double. The two first for a very young child; with pins, number twelve and number eleven. The latter for an older child, pins number eleven and number ten. For the smallest size, sixty is a good number to cast on. Work in ribs of one and one, about sixteen rows, with each sized pins (thirty-two small) will bring it to a good depth. For each advance in size, allow six or eight more stitches in width, and six rows more in depth. The band is to be joined up by sewing the selvedge together, and is put on from the feet.

Inside Shoe-sole.—Pins, number eleven or twelve. Wool, Lady Betty or single Berlin. The middle of this sole is done in double knitting. The first and last stitch of every row are plain. The increase is made by working an additional stitch on the back of these loops. Double knitting is done thus—Bring the wool in front, slip one stitch, carry the wool back, knit the next stitch, pulling the wool twice round the pin; work these two stitches alternately throughout. In the next row, the slipped stitches will be knitted, and the knitted stitches slipped. When done, the work may be pulled apart, as if it were two pieces joined together at the edges. When it is required to decrease, do so by knitting two stitches as one, next after the edge. When either an increase or decrease has been made, on returning, there will be an additional stitch to knit plain; but the next time of increasing or decreasing at that part, will restore the edge to its original one stitch, and either reduce or increase two double stitches. Cast on fourteen; knit two plain rows; then commence double-knitting; widen at the beginning of the following rows—

fifth and sixth, ninth and tenth, thirteenth and fourteenth, seventeenth and eighteenth, twenty-first and twenty-second, twenty-fifth and twenty-sixth. There are now twenty-six stitches on the pin. On these, work eight or ten rows without increase. After this, decrease at the beginning of two rows, and work two without decrease ; repeat these, till the number of stitches on the pin is reduced to fourteen. Again knit eight or* ten rows in the regular way. Then widen on twelve or* fourteen rows in succession. Knit eight or* ten rows on twenty-six (or* twenty-eight.) After this, reduce at the beginning of every row for twelve (or*fourteen) rows. Next two rows, reduce twice at the beginning of each row. Next two, reduce one at the beginning of each row. In the second of these rows, slip and knit the stitches in their regular order, but do not put the wool twice round the pin in the knitted stitches. Knit two rows quite plain. Then cast off, taking two stitches as one at the beginning and end of the row.

A Carriage-Boot.—Pins, number eight: wool, six-thread, fleecy. Leave an end of wool of one yard and a-half, and cast on sixty stitches, which work in ribs of one and one, about thirty rows deep. Then four plain rows, one row of holes (made by bringing the wool in front of the pin, and taking two stitches as one) three plain rows, and cast off. Sew the selvedge together, and with the end of wool left at first, cast off double the sixty stitches first cast on. Run a ribbon through the holes. When done, this looks like a wide shallow bag, but when drawn round the foot, it will be found to fit, and set as neatly as need be. It is to be worn over the shoe, and if required, may be used in-doors.

A Warm Petticoat.—Pins, number four or five ; wool, six-thread fleecy. Cast on 220, knit eight rows ribbed, eight rows plain, eight rows ribbed, eight rows plain, eight rows ribbed, eight rows plain. Then continue working in ribs till the petticoat is of sufficient length—about 200 rows from the commencement is a good size, and it may be reduced into a knitted band, by taking three stitches as one, or two as one, and using smaller pins. Rib the band same as the petticoat, about twenty rows deep. Or the petticoat may be cast off and sewed to a calico band. From sixteen to eighteen ounces of wool will be required, but it will out last three flannel petticoats.

* Different numbers are stated to provide for a little difference in size as may be required.

TO A CHILD.

Whose imp art thou, with dimpled cheek,
And curly pate, and merry eye,
And arm and shoulders round and sleek,
And soft and fair, thou urchin sly!

What boots it who, with sweet caresses,
First called thee his, or squire, or hind ;
For thou in every wight that passes,
Dost now a friendly playmate find !

Thy downcast glances, grave, but cunning,
As fringed eyelids rise and fall.
Thy shyness, swiftly from me running,
'Tis infantine coquetry all.

But far a-field thou hast not flown
With mocks and threats, half-hoped, half-spoken,
I feel thee pulling at my gown,
Of right goodwill, thy simple token.

And thou must laugh and wrestle too,
A mimic warfare with me waging,
To make, as wily lovers do,
Thy after kindness more engaging.

The wilding rose, sweet as thyself,
And new-cropped daisies are thy treasure ;
I'd gladly part with worldly pelf,
To taste again thy youthful pleasure !

But yet for all thy merry look,
Thy frisks and wiles, the time is coming,
When thou shalt sit in cheerless nook,
The weary spell, or horn-book thumbing.

Well, let it be! through weal and woe,
Thou knowest not thy future range;
Life is a motley shifting show,
And thou a thing of hope and change!

Joanna Baillie.

FACTS ABOUT HEALTH.

It is now a recognised truth that there is nothing like figures ; by their aid we are enabled to prepare a balance sheet on almost any subject, whenever we may deem necessary. Among the more important subjects that of sanitation must have a recurrent interest, to cease only when there shall be none but *inevitable*

disease left to afflict humanity. The Report of the Registrar-General for the past quarter, ending September 30, contains some particulars worthy of consideration at the present moment. Notwithstanding the alarm excited in many parts of the country with regard to the approaches of disease we read that :—' The mortality in the quarter is below the average. Only 43,445 deaths were registered ; which is less by 6034 than the 49,479 deaths registered in the corresponding quarter of 1847, and 7960 less than 51,405—the number registered in the September quarter of 1846. The mortality of the country, it should be recollected, was low in the three years 1843, 1844, 1845, and in the first quarter of 1846 ; a slight increase took place in the spring quarter of 1846 ; in the summer a great mortality broke out, and continued through the autumn, as well as the whole of the year 1847, until influenza raged epidemically at the close of 1847, and was then, and in the winter of 1848, fatal to thousands. A remarkable improvement was apparent in the Spring of the year 1848, and was still more obvious in the summer quarter. While the deaths in the summers of 1846, 1847, were 8660 and 5986 above—the deaths in the summer of 1848 were 809 below—the corrected average.'

The improvement in health is confined to the country districts, the reason assigned in several instances being ' the low price of provisions,' and it may be taken as an encouraging sign that these results are obtained in the densely populated manufacturing counties, to which the fact that — ' the Irish emigration into Lancashire appears now to have ceased, or to excite no remark'—may, in some measure have contributed. London, however, is an exception to this improvement ; principally owing to the deaths from diseases of the *zymotic* class,* increasing in the four summers 1845-8, from 2437, to 5162.

Scarlatina has been more fatal in the last, than any previous summer quarter since the new tables commenced. It destroyed 1560 lives in thirteen weeks, or 1079 more than the average. The epidemic presented this singularity, that the deaths in the summer quarters 1841-4, were 193, 392, 548, 1020 ; and again 194, 208, 316, 1560, in the summer quarters 1845-8 ; which justifies the hope that the mortality from this disease next year will not be considerable. Vaccination, we observe, is not to be neglected with impunity, 435 persons, chiefly children, having died of small-pox in the metropolis. Typhus destroyed 882 ; 128 persons died of erysipelas ; 182 of fractures, contusions and wounds ; 116 by drowning ; 36 by hanging ; 31 of burns and scalds ; 15 of poison ; 48 of intemperance and delirium tremens, and 1534 of consumption.

The Registrar-General affirms, that up to the end of September there were no traces of epidemic cholera in England, but considers that the disease might make its appearance at a later period. ' Cases of cholera,' he writes, ' have been every year registered in London. The deaths in the eight summer quarters of 1840-8, were 53, 23, 106, 60, 47, 26, 197, 98, 153 ; the deaths in the same seasons from diarrhoea were, 279, 228, 489, 455, 414, 449, 1549, 1196, 1048. Both these diseases were fatal to adults between the ages of 15-60, and to old people ; but the great majority of the cases occurred in children. In the thirteen weeks of the present year ending Sept 30th, the deaths of 90 children under fifteen ; thirty-seven men and women of the age of 15-60, and thirty of the age of 60, and upwards, were referred to cholera.' The above returns shew that diseases domesticated among us, which we have come to look upon as matters of course, are more fatal than the dreaded malady with a terrible name.

If facts teach, it is greatly to be desired that the readers of facts should be willing to learn ; it cannot be too often repeated that if there were less neglect there would be fewer deaths. The waste of children's lives from sheer neglect is fearful. The Manchester District-Registrar states that actual scarlet fever is not so fatal as carelessness during the time of convalescence, or getting well ; ' children,' he remarks, ' before they are well recovered from the fever, are allowed to run out of doors ;

* By *Zymotic* diseases is meant those of a *fermentive* character ; such as measles, typhus small-pox and scarlatina, in which a fermentation takes place throughout the whole of the body, as in a mass of dough or a barrel of beer raised by yeast. They are generally contagious.

and during the late wet weather, from constant exposure to the rain, inflammatory affections supervene, and cause effusion and death. There can be little doubt that scarlatina and other infectious disorders are rendered much more extensive by the utter want of ventilation in the dwellings of the poor. The atmosphere in their apartments is perfectly nauseating and all that the medical attendant can say to them is insufficient to induce them to leave open for a little while their doors and windows. Where scarlet fever once gets into these small, crowded, ill-ventilated dwellings, it is almost sure to affect successively almost the whole of the occupants ; and the poisoned air, nursed as though it were ambrosia, entails the disease on many who have the temerity to enter.' For such a deplorable state of things, the true remedy is knowledge and education, and it is with pleasure that we read of 'The Working Man's Association,' which has been formed in Wigan, actively supported by all classes, 'in encouraging cleanliness, and instilling a right moral sentiment, which it is hoped will have a good effect, and tend to promote the health of the town.' If the members of this association will only go to work in a right spirit, there can be no doubts as to the 'good effect;' and if other towns and villages will follow the example, the beneficial operation of the new sanitary bill will be materially promoted.

The Report contains the usual summary of the weather ; from which we learn that this has been the wettest year within the present century, the quantity of rain up to Sept. 30, having been 24·3 inches, or 7·5 inches above the average. The mean temperature has been greatly below the average ; on July 1, it was 8°4 below, and during part of September 12°6 below. At Uckfield there was a white frost on the morning of August 10. The hottest day, and this holds good for the whole country, was July 6. The districts on the eastern coast have suffered least from rain ; the largest falls have occurred at Stonyhurst, Hereford, Beckington, Leeds, and Torquay. There were fifteen thunderstorms, and four severe gales of wind during the quarter, besides five exhibitions of the Aurora Borealis.

With the advancement of science we may reasonably hope that the connexion between health and the influences of the weather, will be better understood, and disease thereby prevented. Meanwhile, there can be no risk in recommending to all parties, clean dwellings, clean clothes, clean skin, and pure air.

FAMILY SECRETS.

STORY OF A SMOKY CHIMNEY.

BY OLD HUMPHREY.

My friends, I will tell you a story:—

Abel Grave was a hard-working man, and his wife was a decent woman, and each was disposed to add to the comfort of the other ; but, though they did all they could, they had a sad enemy to their peace, which often disturbed them. This enemy was a smoky chimney, which so continually annoyed them, that they were frequently as peevish as though they had a delight in provoking each other. When Abel came home at night, and would have enjoyed his meal in a clean house, and by a bright fire, he had to listen a long time, to the complaints of his wife, who declared that to sit in such a smoke as she did all day, was unbearable. Abel thought it bad enough to endure the smoky chimney, but to bear at the same time a scolding from his wife, for that which was not his fault, and which he knew not how to amend, tried him sadly ; and many a half-hour did he sit brooding over his troubles, contriving how he should cure his smoky chimney.

One night, when the smoke was making its way in every direction, except up the chimney, and Abel was puzzling his brains, and trying to hit upon some plan to lessen the evil, a neighbour of his, a slater, popped his head in at the door ; "Abel," said he, "you are in a pretty smother ; and so you are likely to be, until you place a slate or two at the top of

your chimney, to prevent the wind from blowing down."

When his neighbour was gone, Abel Grave determined that, on the morrow he would do as had been advised, and put some slates on the top of his chimney.

By the time he had made this resolution, another neighbour, a glazier, made his appearance ; "Master Grave," said he, "why your chimney gets worse and worse. I tell you what, you may try a hundred schemes, but none of them will do till you put a whirligig in your window, that is what you want, and you will have no peace till you get one." Away went the neighbour, and Abel began to think about having a whirligig in the window, but was a little puzzled whether to try the whirligig or the slates.

"Hallo, Abel," shouted a third neighbour, a bricklayer, who was passing by, "here is a pretty smother, I suppose you mean to smoke us all out!" "No, no," said Abel, "I am tormented too much with the smoke myself, to wish to torment any body else with it ; nobody knows what a trouble it is to me."

"Why, now," replied his neighbour, "if you will only brick up your chimney a little closer, it will be cured directly. I was plagued just in the same manner, but a few bricks put all to rights, and now, I have no trouble with my chimney at all." This account set Abel Grave off a woolgathering once more, and whether to put slates at the top, to brick up the bottom of his chimney closer, or to have a whirligig in the window, he did not know.

He mused on the matter before he went to bed, woke two or three times in the night, and pondered it over ; yet, when he got up in the morning, he was as far from being decided as ever.

Just as he was about to set off to his work, old Abraham Ireland came by. Now, Abraham had the character of being a shrewd, sensible old man, which character he well deserved, so that he was often consulted in difficult cases. Abel, as soon as he saw him, asked him to step in for a moment, which he willingly did. "I want your advice," said he, "about my chimney, for it is the plague of my life, it smokes so sadly."

"What have you done to it ?" inquired old Abraham.

"Why as to that," replied Abel, "I have done nothing at all but fret about it, for this neighbour tells me to do one thing and that neighbour tells me to do another. The slater says, 'stick some slates at the top ;' the glazier advises me to have a 'whirligig in the window ;' and the bricklayer says nothing will do but 'bricking up the chimney closer ;' and so, among such different opinions, I am more puzzled about it than ever."

"There may be some sense in what they all say," answered Abraham, pondering the matter over ; "and if I found it necessary, I would take the advice of all three. Suppose," said he, "you tried that first which is the easiest to do ; put a slate or two at the top, and if that will not do, have a whirligig in the window, and if both of them will not cure the smoke, why, then brick up the chimney a little closer. The best thing to that or knowing what will cure a smoky chimney is to know what will not cure it ; and you are sure to find out one or the other."

No sooner was old Abraham gone, than Abel went in search of the slater, who in an hour's time had put the slates on the chimney top. When Abel returned from his work at night, his wife told him that the house had not smoked quite so bad as it did before, but that, still it was not fit for any human creature to live in.

Next morning Abel went to the glazier, who in the course of the day put a ventilator in the window, which many people call a whirligig. This mended the matter surprisingly. Abel was pleased to find so much improvement ; but as the smoke still did not go right up the chimney, he set off to the bricklayer, who, the following morning, bricked up the chimney a little closer, to make the draught quicker ; so that when Abel once more returned home, he found a clean hearth, a bright fire, a good-tempered wife, and a house as little troubled with smoke as any house in the parish.

"Well, Abel," said old Abraham Ireland, who had called to know how the improvements were going on, "you and your wife are able to see one another now."

Abel told him what he had done, and that his chimney was quite cured.

"I am right glad of it," replied Abraham, very heartily, "and the next time you get into a difficulty, instead of

wasting your time in fretting over it, and snarling with your wife, listen to the advice of others, weigh it in your mind, think on the means most likely to get rid of your troubles, and proceed directly to put it in practice ; for this plan will cure a thousand troubles, quite as well as it will cure a smoky chimney.

There, I have told you my story, and I hope you will reap from it some advantage. It is a good thing to take advice from a prudent man, who can guard us from error, and assist us when in difficulty; and a better thing still to take advice from a Heavenly counsellor, who can guide us by his counsel, and bring us to his glory.

THE YOUNG WIFE'S SECRET.—"NOW Eliza, after such a delightful wedding-holiday as we have had, would it not be a good time to tell me your secret?"

A young and happy-looking couple were seated at breakfast, on the morning after their short honeymoon trip, when this question was asked.

"A better time, dear James, could not be chosen, but would you really like to hear it now?"

"Why not? the sooner we begin to act upon it the better."

"That is true, James, but would you not prefer to find it out for yourself?"

"Oh, I have been trying to guess ever since you first told me of it. Perhaps, Eliza, it is no secret after all?"

"I assure you that it is ; and a most valuable one too."

"Is it much known?"

"Well dear, I can hardly say ; but judging from appearances I should think not."

"How came you to know it?"

"I learnt it from my mother ; she often told me that all her happiness was owing to it. Were she alive now she would witness its effects in us."

"You quite puzzle me, Eliza : it must be something extraordinary if, as you say, it prevents man and wife ever having a second quarrel. You may as well tell me at once."

"I am quite ready to tell you James ; but I am sure that your pleasure will be greater in finding it out yourself. Fortune favours the persevering."

"Ah, I know now ; you mean that we are to count a hundred ; or fill our mouth with water ; or twirl a chain, or some such way of getting cool when we happen to be angry."

"No, James, none of these : it is much more certain, and attended with better effects."

"Perhaps you mean that we should shut ourselves up in different rooms, or not speak to one another for a week?

"No, dear James, nothing so cruel as that. Heaven forbid that ever we should be driven to such extremities. By persevering in my secret, we shall always love one another as truly as we do now. Our trust in one another will increase ; and the longer we live the happier we shall be. You will very likely say that it is no secret after all, now that I tell you :—the surest way to avoid a *second* quarrel is never to have a *first!*"

"Capital!" exclaimed James, laughing: "I will stick to that with all my heart." He would have liked to prolong the conversation, but the wedding-holiday was over, and he wished to be punctual at work. So taking up his hat, he imprinted a good-bye kiss on his wife's rosy lips, resolving as he went out to put her secret into practice.

THE PRIZE EXTRAORDINARY—A HINT FOR BOARDING-SCHOOLS.—The Governess of a ladies' school one day made her appearance among her pupils holding in her hand a valuable and interesting book, which she knew that all of them desired to read, and some of them very much wished to possess. She proceeded to inform the young ladies that this beautiful volume was intended as a prize for the one among them who should first accomplish the feat of taking a million jumps with the skipping-rope. Skipping, of course, became a fashionable recreation in the school—in fact a serious business. Sauntering, and lolling over the fire were almost entirely laid aside, and the sound of the rope and the jump was continually heard, each young lady counting her jumps, and entering the number in a book appointed for the purpose. At length the number was achieved, and the prize obtained by a persevering little girl, who, for two or three winters previous, had been a grievous sufferer from chilblains. Perhaps the cure or prevention of chilblains had never entered the minds of the young competitors, but so it was, that in

the succeeding winter, chilblains were almost unknown in the school—and, in particular, the girl of the million skips has never had a chilblain since.—N. B. There is no patent that restricts this valuable remedy to that particular school. It is perfectly free for the use of any school, any family, or any young person who may have the good sense to adopt it.

GARDENING AND RURAL AFFAIRS.

GARDENERS USEFUL TO FARMERS.—'One of the most powerful of all agents in teaching agriculture to a nation of small farmers is a central Society of Horticulture; provided it is established on sound principles, and conducted in their spirit. Horticulture is the parent of Agriculture. Gardens existed before farms. Gardening is in truth but farming on a small scale, and vice versâ. It is in the garden that the minute facts necessary to successful cultivation can be best examined and understood; it is there that the causes of failure or success can be best investigated, and that are tried, accidentally or intentionally, those small experiments which lead to those more important experiments in fields. The best of all little farmers are experienced gardeners; the best of all agricultural instructors are intelligent gardeners.'

'In a garden, the advantage of digging, over scratching the ground, as is now done in wild countries, was ascertained; the plough was then invented to do the same work in the fields. The gardener finds that deep digging is far better than shallow, and then came improvements in the mechanical power of the plough. The gardener finds that his crops are late, or unhealthy, or unproductive, in cold, wet land; that his fruit cankers, his grapes shrivel, and his flowers run all to leaf; he cuts, drains, and removes the water, restores health and fruitfulness to his crops, and finds that frost is no longer so great an enemy as had been supposed; this is the prelude to agricultural draining. The gardener finds that weeds ruin his vegetables, and he therefore keeps his land clean; his vegetables are no longer ruined, and the farmer follows his example. The gardener learns that his finest crops are obtained by planting widely; years of experience, under all circumstances, render this indisputable; and at last the farmer bethinks him that what does in the garden should also do in the field, and then sowing is the result. In short it would be difficult to show any one move in the art of cultivation in the field which has not derived its origin from the garden.'

'Some persons, indeed, think that the man who can grow cabbages is by no means able to grow wheat and hay, and that to get the finest celery, is no guarantee of the success of a crop of turnips. They are unable to perceive any connection whatever between agriculture and the labours of the florist, who grows auriculas and picotees, or the high cultivation of the rich man's gardener, who rears his plants in glass-houses with an artificial climate. That there should be a connection between the refined skill which produces the gorgeous Epiphytes in the hot-houses of the Duke of Devonshire, and the rough labour of John Coonan's potato-field in Cork-street, Dublin, is a thing incredible.'

'And yet the difference is of the same nature as that which would be found between the grooms who tend the racing stud in Lord Fitzwilliam's stables, and the rude peasant who feeds a stumbling cart-horse with furze from a Welsh common. The groom could manage the cart-horse and bring him into condition; but the peasant could do nothing with the thorough-bred racer.'

'It is for this reason that Horticultural Societies may be of so much importance; they are, or should be, centres from which spreads a knowledge of the art of cultivation; but they are, or should be, much more; they should be the high schools of principles either in themselves, or in the encouragement which they afford to art, and the support which they thus extend to the prosecution of principles. It is true that this is generally and of necessity, done indirectly, but it is not the less done, or the worse done, on that account. A prize is offered for a cabbage; a solitary competitor appears, and produces a cabbage; but much inferior to what was hoped for, nevertheless, he receives the reward of his exertion. A stander-by says, "Why, I could have done better than that myself!" and he, too, becomes a competitor on the next occasion. Emulation having been excited we now have two or three competitors, but still their cabbages are poor affairs; nevertheless, they receive their prizes. A is No. 1, B. No. 2, and C. No. 3. But C. means to be No. 1, and now applies himself in earnest; he examines, he inquires, he exerts his skill to win, and after a year's care, and we will even say study, he succeeds. He has only produced a cabbage, it is true; but it is a much better one than he could have produced before he set about trying for a prize. He will never again be able to grow cabbages ill, and, what is more, he will in future grow every other thing better. Thus a step is gained; the snow-ball begins to roll, and we all know what happens then, if there be but snow on which to revolve. Experience tells us that human nature will always produce enough of the food required.'

A Horticultural Association has lately been formed in Dublin, and the author of these excellent remarks in the *Gardener's Chronicle* states, that if the new society will follow the example of the Royal Agricultural Society of Ireland, they have 'the opportunity of giving, through the means of horticulture, a most powerful impulse to the advancement of agriculture, and thus in assisting effectually in that regeneration of industry which must be secured in Ire-

land, if the rights of property are to be maintained, and the country is not to fall back into utter barbarism.'

'This is not to be done by setting great lords and gentlemen to scramble for sixpences, not by fostering trifles, and neglecting essentials, not by placing the lowest kind of gardening in the same rank as the highest, not by giving high prizes for such fancies as an additional bar on the petal of a carnation, or a new tint in the colour of a heart's-ease, while cottage-gardening, important as it is to Ireland, is utterly neglected; but by conferring honours on those who win them, by limiting prizes to examples of good cultivation, to the exclusion of mere botanical and floricultural curiosities, and above all things, by exciting a generous emulation in all those branches of gardening which most contribute to the steady progress of the art.

RHUBARB.—For upwards of two centuries, this wholesome root has been known in England, and it is now among the most esteemed of our spring productions. It was originally brought from Asia, and in that quarter of the globe is abundant throughout the more temperate regions. In this country its culture costs but little trouble, as it is hardy enough to thrive in the most exposed situations; and the attention given to it for so long a period, has resulted in the production of several varieties, some more forward than others, so that a continuous supply may be obtained through the entire spring.

Rhubarb delights in deep, rich land, and that which is naturally moist, or of an alluvial character, will grow it the finest. Clay and gravelly soils are unsuited without much preparation: the first requires to be well drained, and the subsoil broken up in the trenching to facilitate the spread of the smaller roots; whilst the gravel should be rendered more holding and cool by the addition of loam and cow-dung, the latter being a most excellent manure upon all light lands, as it is less heating, and lasts longer than any other.

The plants may be raised either from seed or by division of the old roots. If the first method be adopted, some care is necessary in the choice of seed. Let it be the produce of such kinds as come nearest the qualities desired in the future plantation; seedling plants vary a little, both from their parent and from one another. Still the greater part will be found to retain the principal characteristics of the kind from which they sprang. Thus the earlier sorts will, in general, retain their precocity, or at least their seedlings will always be of quicker growth than those obtained from the late kinds, and so of all the other properties. In March, a bed of rich earth should be prepared by manuring and thorough trenching, on which the seed may be sown at once in drills, fifteen inches apart, and if the seed is quite new, it must be sprinkled thinly in the rows: to be afterwards thinned when the plants have grown two or three leaves, in proportion to the goodness of the ground and the character of the sort. The largest kinds on strong land, should stand eighteen inches one from another, through the first season, while for the smaller sorts one foot will be sufficient; they will require no further attention after this thinning, except to be kept clear of weeds until the autumn, when as soon as the leaves have died down, and while the weather is yet favourable, they should be transferred to the ground intended for their permanent growth. On the choice and preparation of this, much of the future success depends, it should be as nearly like that previously described as possible, and in a position sheltered from the sweeping winds of the north; a liberal coat of manure should be trenched in, the ground being turned to a depth of eighteen inches, or two feet, and on this the plants are to be stationed about a yard apart. Their subsequent management will be confined to an annual digging, turning in each time a good coat of the strongest manure, and the constant removal of flowering heads, except when seed is required. In the first spring after planting, some few of the stems may be gathered, but it would be unwise to take more than a third, lest the plants suffer: in the following season, however, they will yield a full crop, and it should be borne in mind, that the stems must never be cut from the plant, but pulled off by a smart jerk on one side. Such plantations continue in use from seven to ten years. If the plants are multiplied by separating the old stools, it should be done in autumn, and the pieces are then to be planted or trenched in, as recommended for seedlings at the end of their first summer.

Rhubarb is very easily forced so as to be fit for use throughout the winter and early spring months: any place a few degrees above the freezing-point, where it may be supplied with moisture will produce it, though of course its progress will be proportionate to the warmth supplied. Market-gardeners usually dig a trench about two feet deep, in the open ground, in the bottom of which the roots are placed, the top is covered with hurdles, and over them a thick coat of hot dung. This is by no means the best method, though an easy one, as a great part of the heat of the fermenting material is lost, while the drainage falling through upon the plants, is likely to impart an unpleasant flavour. Where only a moderate quantity is wanted, the best plan is to cover the roots with pots or boxes, and throw about a foot of fresh tree leaves, or half-spent dung round them, if three or four plants are thus treated at intervals of a week, a continued supply sufficient for a moderate family may be depended on. In the absence of any better means, rhubarb may be forced by merely placing the roots in a closet or cellar secure from frost, and with no other trouble than to surround them with earth, and give a moderate watering once a week, very palateable stems will be quickly produced; it grows equally well in the dark as in the light, though the produce has rather less flavour. Of the sorts commonly cultivated, the following six are among the most useful: the first three are early or quick growing kinds, the others are later, and usually produce much larger stems—Mitchell's Prince Albert, Myatt's Linnæus, Tobolsk, Old Scarlet, Myatt's Goliath, Large Red.

VARIETIES.

London Cesspools.—At the last census in 1841, there were 270,859 houses in the metropolis. It is known that there is scarcely a house without a cesspool under it; and that very many old houses have two, three, and more under them; so that there may be taken to be 300,000 of such receptacles. The exposed surface of each cesspool, taken on an average, measures 9 feet; and the mean depth of the whole is about 6½ feet, so that each contains 58½ cubic feet of filth. The exhaling surface of all the cesspools (300,000 multiplied by 9) is equal to 2,700,000 feet, or to 62 acres nearly; and the total quantity of foul matter contained in them (300,000 multiplied by 58½) is equal to 17,550,000 cubic feet, or to one enormous cesspool, 10 miles in length, 50 feet in width, and 6 feet 6 inches in depth, which would extend through London from the Broadway at Hammersmith, to Bow Bridge, over the River Lea—a length of 10 miles. If such a gigantic cesspool of filth, were to be seen, it would fill the mind with horror; but, as is shown above, a vast number of small ones, which, added together, equal it in extent, is dotted all over the town—in fact, it may be said, that the ground in old districts more particularly, is literally honeycombed with the barbarous things, From them a nasty, stinking, pestiferous vapour is constantly escaping, corrupting the atmosphere from one end of London to the other, and creating disease, misery, poverty, and other evils among the inhabitants.—*The Builder.*

Tight Lacing and Red Noses.—If a foolish girl, by dint of squeezing and bracing with busk and bones, secures the conventional beauty of a wasp waist, she is tolerably certain to gain an addition she by no means bargained for, a *red nose*, which in numberless instances, is produced by no other cause than the unnatural girth, obstructing circulation, and causing stagnation of the blood, in that prominent and important feature. Often, in assemblages of the fair, we have seen noses faultless in form, but tinged with the abhorred hue, to which washes and cosmetics have been applied in wild despair; but in vain! If the lovely owners had known the cause, how speedily the effect would have vanished; for surely the most perverse admirer of a distorted spine and compressed lungs, would deem the acquisition of a dram-drinker's nose, too heavy a condition to be complied with.

Work and Wages.—Nothing would tend so much to improve the condition of society, as that each of us in our sphere, should scout the grovelling wickedness of keeping back the labourer's hire, recognizing the unchangeable law of God, that a day's toil, whether in town or country, by man or woman, is worth a day's decent living, and that we owe not a farthing less, whatever be the demand of hard-screwed competition. If we were all to act on the Duke of Wellington's principle of wanting nothing *cheap*, that is, at less than its value, this would soon right the gallant ship, now on her beam-ends, raising one side and lowering the other, to the safety and comfort of all. Alms-giving will never do it—it is a thoroughly rotten prop to bear upon; a man who is a man, will never beg while he can live by digging.—*Nozrani: Rev. T. Wilson.*

Punctuation.—The following example of mal-punctuation strongly illustrates the necessity of putting stops in their proper places. 'Cæsar entering on his head, his helmet on his feet, armed sandals upon his brow, there was a cloud in his right hand, his faithful sword in his eye, an angry glare saying nothing, he sat down.'

The Prompt Girl.—The prompt girl rises with the lark in the morning. When the gray dawn steals in at her window, she springs from her bed, and in a very few minutes she is dressed, and prepared to make her appearance in the family, to assist her mother if necessary; and if not needed there, to go to her devotions and her study. She has done, perhaps, in fifteen or twenty minutes, what the dilatory girl would be an hour and a-half in doing, and did it equally as well. She is always in time. She never keeps the table waiting, and never comes after the blessing. She is never late at prayers; never late at school; never late at church. And yet she is never in a hurry. She redeems so much time by her promptness that she has as much as she needs, to do everything well and in time. She saves all the time the dilatory girl spends in sauntering, in considering what to do next, in reading frivolous matters out of the proper time for reading, and gazing idly at vacancy. This good habit, our readers will perceive, must be of great advantage to the one who possesses it, as long as she lives. It is, however, within the reach of all. Only carry out the idea we have given of promptness for one day, and then repeat it every day, and in a little time, the habit is established.

Love.—Love is the weapon which Omnipotence reserved to conquer rebel man, when all the rest had failed. Man parries reason; fear he answers blow to blow; future interest he meets with present pleasure; but love—that sun, against whose melting beams winter cannot stand—that soft, subduing slumber, which wrestles down the giant—there is not one human being in a million, whose clay heart is hardened against love.

Economy.—Economy is one of the chief duties of a state, as well as of an individual. It is not only a great virtue in itself, but it is the parent of many others. It preserves men and nations from the commission of crime, and the endurance of misery. The man who lives within his income can be just, humane, charitable and independent. He who lives beyond it becomes, almost necessarily, rapacious, mean, faithless, contemptible. The economist is easy and comfortable; the prodigal harassed with debts, and unable to obtain the necessary means of life. So it is with nations. National character, as well as national happiness, has, from the beginning of the world to the present day, been sacrificed on the altar of profusion

SELF-IMPROVEMENT;

In Three Lessons.

LESSON II.

"Whatsoever thy hand findeth to do, do it with thy might."

In our first lesson it was shewn that if any one desires to maintain or improve his position in the world—if, indeed, a man will be a man, he must of necessity cultivate his mind. But to some people these words—cultivate the mind—convey no meaning: they know what cultivating the land means, because they have often seen farmers and their labourers ploughing, sowing, and weeding in the fields; but they find it difficult to connect these operations with a something that exists, or ought to exist in their brain, which they cannot see. This difficulty, however, is not so great as might be supposed, and although we cannot see how ploughing, sowing, and weeding are carried on inside the head, yet we know that they are carried on, for we see their effects. It is not so much hand-work, as eye-work and ear-work; we do not take lumps or pieces of any thing into our hands and fashion them into something else; the tools mostly used in mind-culture are eyes and ears, and the object of the present lesson is to shew, that if these be rightly used, our harvest is not less certain than that from a well-tilled field.

The means for self-improvement are more simple, and more within reach, than would at first be believed by those who have never thought about the subject. Some of them already exist within us; the others are round about us: they are self-control, diligence, perseverance, and reading, study, observation and conversation. It must be carefully remembered, that without the first three, the latter will be but of comparatively little use. The hand of the diligent, we are told, maketh rich. Working by fits and starts, is about as profitable as digging up a newly-planted bean day after day, to see how it is growing. More is lost in the idle season than was gained during the short spell of activity. Not by such means can the store-houses of the mind be filled.

But some will say, what is the use of talking about diligence and perseverance to us, who cannot become diligent or persevering try what we will? To such we answer,—have you ever tried the right way, or in real earnest? In what way are machines set in motion? By power! If power cannot be had, the wheels and cranks will not move; but once apply power, and the works keep going as long as you please. So it is with the mind; there must be impulses or motives, which are the same as power, and when these come thoroughly into action, we shall not be long in finding out that habits of diligence and perseverance grow out of them as naturally as chickens from eggs. Therefore we say, do not sit down despairing, or persuading yourself that it is of no use to try. Perhaps you feel disheartened at the difficulties to be overcome: never mind—railway tunnels were dug out a spadeful at a time. Do but make a beginning, and once having begun be content to plod on. Don't expect too much; don't be impatient, but keep on. Perhaps you are not of a hopeful disposition: again we say, never mind! keep on, although you may feel sure that no benefit will come. It seems like groping in a mist or in the dark; plod on, plod on; light will break through by-and-by, and you will wonder at having got so far. It is better, as the

Dutch say, to move only an inch an hour than not to move at all. It is astonishing what a great deal may be accomplished by patient perseverance, and it must be borne in mind that every step is so much clear gain—it is cumulative, and remains as a store to which something else may be added, as with money in a savings' bank, or a little lump of snow which boys roll about till it grows as big as a haystack. Whether you feel hopeful or desponding, sad or cheerful—whatever be your expectations—keep on, persevere! For one thing is certain—perseverance will conquer in the end, and perseverance in one thing leads to perseverance in every thing.

Self-control, diligence and perseverance mutually sustain each other; the man who can persevere in self-control, has gained a great victory. Self-control helps us to shun all that tends to depress and degrade us, and to seek that which refines and elevates. Do you lie too long in bed—spend money wastefully—loiter over your work—frequent taverns—take snuff—have you any low or dirty habit? Leave it off at once, and you will have taken the first step towards self-control. These are the weeds that must be rooted out, unless you wish your harvest to be choked by docks and thistles.

Well, suppose the habit of perseverance conquered; to be lying within you, ready as a steam-engine to work whenever called upon, it may at once be made to assist all your endeavours. The next step is to begin to read. Perhaps the remark may be made, I have been reading all my life. This is said by many persons who look into books just to pass the time away, and call it reading. But the true way is to read as you would take food—to digest it, to make it a part of yourself. Books are now cheap, and by the exercise of a little self-denial, any person, even in the humblest circumstances, may become the possessor of Histories, Biographies, Travels, Essays, Poetry, and increase his knowledge a hundred-fold, and store his mind with the best thoughts of wise men. To read of the good that men have done may stimulate us to follow their example, and to read of their errors may teach us to be watchful over our own ways; and thus we shall profit by the experience of others. But some will say we have no time for reading—we work early and late, and have no leisure. To this we would answer: get some books about you, and opportunities for reading them will not be lacking. Five minutes in a morning before going to work, and the same on coming home to your meals, or half-an-hour at night, even such small attempts as these will be profitable. Remember the Dutch proverb—an inch an hour. Inch by inch the tortoise creeps a mile; and five minutes to five minutes will take a man or woman, boy or girl, through a book. Besides, great economy of time may be effected by planning it out beforehand; those who have hitherto been content to 'get along,' will be astonished at the benefits to come from foresight. For instance, on waking in the morning, you may fix in your mind on certain duties to be done between the time of rising and breakfast, others from thence till dinner, and others again from mid-day till dusk and bed-time. The minor details of life might thus be made to go on almost of themselves, and leave you more at liberty to follow the bent of your inclinations in matters of greater importance. With a plan arranged beforehand, every moment of time may be provided for; and wherever there appears to be a spare minute, not wanted for household duties, playing with the children, or attending to the garden, let it be filled up by reading, study,

music, or conversation. Time is too precious to be wasted; odds and ends are worth more than is commonly supposed. You can find time to sit and smoke your pipe, to go to the 'Cross Keys' or 'Lord Nelson;' suppose you change this habit for a reading habit. You may read aloud if you will, and you will have not only the pleasure of informing your own mind, but of seeing your wife and children become listeners. Who can tell how many words in season might thus be spoken in little shreds of time now looked on as worthless! Perseverance does a great deal with odds and ends of time: we know a working mechanic who, in odd quarter-hours made an excellent finger-organ; another, who by keeping-on, furnished his house comfortably from top to bottom; and another, a carpenter, who in addition to his regular trade, had learned to make shoes. This one, whenever he had a spare minute, sat down on his stool and put a few stitches into a shoe preparing on the last; and thus, almost without feeling it a trouble, his family were kept provided with boots and shoes. To pass from small things to great: all history teaches us that those who have been most successful in the world, were generally those who best economised their time.

This planning out of your time may seem to be very troublesome, but it is not so in reality. After a little practice, your various arrangements grow into habits, which by-and-by become as natural to you as any ordinary movement of the body or limbs. But even if it be troublesome, we are not to shrink from it on that account. Nothing worth having can be obtained without trouble; and that which we have gained by exertion, we prize more, and turn to better account than that which costs little or no labour. There must be no flinching; those who are afraid of exertion may stand aside, and make way for those who are more persevering or less faint-hearted.

What we have said on the subject of reading, will apply equally to all kinds of study—to conversation, and observation. Whatever you undertake let it be a fixed principle with you to keep on till you have accomplished your wishes. And here a habit of observation will also be of great assistance. By observation is meant the paying attention to what is going on around us—making proper use of our eyes. There are thousands of persons who never see any thing—that is, they shut their eyes to every thing but the mere mechanism of life—the three meals a-day; dressing and undressing. But observation will shew us a thousand facts that will add to our knowledge and experience. Note well the different characters of the people you work with, of those you meet in your daily business, and by-and-by you will find out they are not all alike, and learn to value the best. Pay attention to handicrafts; how many hints you may pick up which otherwise you would never have known. Are you taking a country walk: you will find in the trees and hedgerows, in weeds and stones, many things to make you thoughtful and increase your pleasures. It is not all barren; there is a multitude of delights for those who will take the trouble to look for them. Observation leads a man to form correct judgments; if he has any notions in his head he can always test their value by observation—by comparison with others. And, what is not least, by observation at home you will learn to understand differences in the character of your children, and to train them so as to bring out the good that is in their nature, and thus avoid the error of governing them all by one limited, uncompliant rule.

Perhaps it will be some time before you can entirely make up your mind to what appears to be such a hard task. But is it really hard? By thus giving yourself continual employment, you are in fact promoting your peace of mind. Occupation prevents the mind from dwelling upon little cares, makes a man sensible of his true value, and makes him happier if not richer. Think over all the good examples of which you have heard or read, and little by little your mind will come to a determination. When once your mind is made up, set to work immediately. You have come to the conclusion that you want knowledge, and knowledge you must and will have. You will no longer be a mere digging, weaving, or smiting animal. You will become a thinking animal. Do not, however, be frightened at the first difficulty; keep on, go a-head, as the Americans say. We do not mean that you are to master all the sciences; but you are to aim at that knowledge which will make you a good husband, father, citizen—which shall save you from being led astray by false arguments or false pretences. We are all responsible for the pains we take to inform our minds; to gain such principles as shall enable us to judge correctly between right and wrong.

Although we have here recommended what we consider a proper course to be followed in self-improvement, we do not say that no other course is to be chosen. We have indicated what may be called the mechanism of the pursuit; the power that must set the mechanism in motion depends on your own will. Do not rest content with being an imitator, but try to obtain a correct notion of what it is you are aiming at, and then follow it up in your own way. Exercise self-reliance, and it is very possible that your own method will be better than that here recommended. Never venture to say that you cannot do a thing, until quite sure that all the means at your command are exhausted.

As before urged, do not despise or neglect small opportunities; ten minutes a-day only, perseveringly devoted to one pursuit will in the end make up a large store. Even without entering on any new occupation, it is possible to do much towards self-improvement, by simply determining to do whatever you have in hand in the best possible manner, better than ever you did it before. No matter what the employment, this resolution may be put in practice—by a man, whether building a house, or ploughing a field; by a woman, whether nursing a child, or darning a stocking. This is an excellent method of self-culture, as it prepares the mind for other and greater improvements. Remember that every good effort, however trifling, tells—it becomes a part of ourselves—it bears interest, adding sum to sum, till an amount is accumulated of which we can never be deprived. Whether for good or for evil, all that is wanted is the will. Take the first step—persevere—and all the rest is easy.

We shall conclude this lesson with the friendly counsel addressed by Sir Robert Peel, to a newly-formed society of young men at Tamworth: 'Heed not,' he says, 'the sneers and foolish sarcasms against learning, of those who are unwilling that you should rise above the level of their own contented ignorance. Do not for a moment imagine that you have not time for acquiring knowledge; it is only the idle man who wants time for every thing. The industrious man knows the inestimable value of the economy of time, and amidst the most multifarious occupations, can find leisure for rational recreation, and mental improvement. Do not believe that the acquisition of scientific knowledge will obstruct

your worldly prosperity, or that it is incompatible with your worldly pursuits. Rely upon it you cannot sharpen your intellectual faculties, you cannot widen the range of your knowledge, without becoming more skilful and successful in the business or profession in which you are engaged.'

THE FOUR CLERKS—A TRUE TALE.

CHAPTER I.

Nearly at the same time, four youths entered a manufacturing and mercantile establishment in London. It was that of Messrs. Samuel and James Stephenson. These gentlemen were cousins, placed together by circumstances, rather than by congeniality of disposition and habit. The concern had been established by three brothers, one of whom died unmarried ; each of the others left one only son, who became joint proprietors of the whole property. The characters of these gentlemen were very dissimilar. Mr. Samuel Stephenson was distinguished by high-toned principle, sound practical wisdom, and persevering energy. He was a first-rate man of business. His cousin was indolent, weak and vacillating—much given to luxurious living, and pleasure-taking. He was not indifferent to the success of the business. His expensive habits rendered it most important to him that it should be prosperous and productive. But he placed an unfair reliance on the activity and prudence of his partner, and satisfied himself in his own neglect of business, by the consideration, that his cousin would be sure to attend to it, and so he certainly did ; and he made a more than candid allowance for the different tastes and habits of the other party ; submitting to the unfair burden as a matter of course.

The family of Mr. Samuel Stephenson consisted of daughters only. Mr. James Stephenson had one son. His introduction to the business, was looked upon as a regular step towards his being, at some future time, admitted to the partnership. He was one of the four youths above referred to. A second, was Richard Hart, who, also, was brought in by the same interest. His father, a medical man, was on terms of intimate companionship with the father of James, who, little efficient as were his services in the business, was not backward in claiming his full share of influence when he had a friend or crony whom he wished to oblige. The next lad was Frank Marsom, the son of a prosperous country tradesman, who had long had business transactions with the Messrs. Stephensons, and, cherishing the very common ambition of placing his son a step higher than himself in the commercial world, in order thereto, sought his admission into a house of such long-established respectability. The fourth, Louis Chaumier, was the son of a widow in somewhat straitened circumstances. Her husband had embarked the whole of their property in an expensive, but promising, concern, and died almost before he had begun to reap any advantage from it. She was a woman of principle and energy, and immediately devoted herself to the task of filling up the place of both parents. Few, besides herself, were at all aware of the exertions, the struggles, and the sacrifices by which she was enabled to keep up respectability of appearance, to bring up her little boy in comfort, and to bestow upon him a good education. Her deceased husband had been much respected by the gentlemen of the Stephenson firm, and her own praise-worthy efforts had secured their continued esteem, and had led to the offer of receiving her son into their employ ; at the same time an arrangement was made for young Marsom to board in her house.

The different dispositions of the lads, and the results of various courses of early training, were not long in manifesting themselves. James was often late in coming to business, and negligent and careless in performing the tasks assigned him. This brought him into collision with Franklin, the general superintendent-overseer, or, as he was called in those days, 'the foreman.' A kinder man than John Franklin never lived, nor one who was more disposed to befriend the young.

But he was, also, a man of high principle, and strict punctuality; and he justly considered himself bound by regard to the interest of the youths placed under his control, as well as to that of his employers, to require the regular performance of their several duties. Now the native indolence of Master James, rendered him averse to business, and his pride was hostile to subordination. "Why should *he*," was his frequent appeal, "why should he toil and drudge like a parish apprentice? Why should *he* be dictated to by a servant, when he was (or shortly would be) master of the business?"

"Well, sir," Franklin would quietly reply, "I hope you may live to be a good master, no one would be better pleased than myself to see it, but that does not come by birth, sir. The only safe way to the top of the ladder, is to go right up the rounds. Look at our Mr. Stephenson; Mr. Samuel, I mean, he and I were lads together in this business; he was the son of the principal, but his father would have him learn every thing, and do every thing, just the same as I did, who was only a poor boy. And now see what a master he makes! and what great improvements he has carried out in this business! All that would not have been, if he had thought himself too much of a gentleman to learn when he was young. It is not likely that I shall live to see it, but I would wish you to know your business as well as he, and be as much respected in the house and out of it. At any rate, I should not like you to have to say, when I am dead and gone, 'I should have known better how to manage my business if that old Franklin had not neglected to teach me.'" James was not an ill-tempered youth. He would generally take the remarks of the honest foreman in good part, and, for a short time, set himself to do better. But it was not lasting; he soon relapsed into his habitual indolence and carelessness. Unhappily, his bad habits were not counteracted by the influence of his father; whose tastes, in fact, he had imbibed, and whose example, he too closely followed. If the youth, by whom application to business was deemed a burden and hardship, was seen brooding over his work with a moody, discontented countenance, or heard to complain bitterly of being 'bothered to death' with some perplexing account, his father, instead of encouraging him to resolution and perseverance, would say, "Well, you must get Chaumier to do it for you, he is a poor lad, and will be glad to earn half-a-crown; or there is Dick Hart, he is a clever fellow, and good-natured, he will do it for nothing." Such suggestions were always accompanied by the means of carrying out the proposed substitution; and, as no portion of the money so bestowed, ever found its way to the pocket of Louis, it only went in aid of an already too lavish allowance of pocket-money, to engender habits of reckless extravagance. Scarcely a week of business passed without some interruption in the shape of pleasure. A day's fishing at Lea Bridge or Waltham Abbey — a day's pleasure in Epping Forest, or at White Conduit House, or Bermondsey Spa, or even Greenwich Fair, or Bartholomew Fair — for, at that time, those scenes of vulgar resort were not quite exploded by the higher-classes of citizens. Failing any of these special attractions, there was sure to be a dinner-party at home or abroad, at which the company of Master James, as well as that of his father, was particularly desired; or if a whole day's absence was not claimed, there would be slipping away at an early hour, to join a party for Vauxhall, or Ranelagh, or the Play; anything would serve as an excuse to break away from the drudgery of business, and resort to some more agreeable pastime. When messages arrived, with these excuses for absence, old Franklin groaned outright, or muttered to himself, "'Tis well the old heads of the firm are not here to see it." Mr. Stephenson, (senior) shook his head and sighed, but said little. What could he say, when his equal partner, not merely granted leave of absence to the youth, but himself set the pleasure-loving example, and formed one of the party?

Richard Hart, was an active and clever lad, quick in acquiring knowledge, and capable of making himself useful, in a degree not common in proportion to the time he had been engaged in the business. His proficiency was noticed with pleasure and approbation, and, both by the senior principal, and by the faithful foreman, he was regarded as a promising youth. That he was sometimes known to help Master James over his difficulties, was put

to the score of good-nature in one party, and passed over in silence, from the hopelessness of effecting a radical improvement, in the other. The instructions which, on his admission to the warehouse, Richard Hart received from his father, were to the following effect:—"Now, my boy, if you mind your Ps and Qs, this will be the making of you for life. Mind you keep good friends with young Stephenson, give way to him in everything—help him out of his scrapes, and never laugh at his stupidity or his blunders. Be sure you keep in favour with old Franklin; for depend upon it, the principals see through his eyes. And always pay profound respect to the senior partner; he is a shrewd old gentleman, but if he thinks well of you, he will be a firm friend. To gain this, you must stick to business. It will not do for you to be hunting after pleasure like young Stephenson; your position is different from his; you must mind the main chance, and be content with what pleasure you can get, when business is over; but you may generally contrive to get in with him for the evenings, and you know he is able to stand treat." The youth understood the hints of his sagacious father. He shaped his course accordingly, and, in so doing, gained credit with the seniors in the concern, for diligence and propriety; and favour with the junior, as being his willing fag in matters of business, and a pleasant companion in those of pleasure.

Frank was a good-tempered, well-disposed lad—not so clever as Hart—but by no means deficient in ability or activity, and remarkable for willingness to oblige—he was a general favourite. Circumstances, however, led him into a greater degree of intimacy with Louis, than with either of the other youths. Having the same home, their leisure time was spent in each other's company; and no efforts were spared on the part of Mrs. Chaumier to render their home comfortable and attractive. The lads became cordially attached to each other. Their pursuits and pleasures were innocent, rational, and inexpensive, and they were uniformly cheerful and satisfied, without having recourse to the amusements which seemed so essential to their young associates; but, in fact, they had not much intercourse with the other lads, except in the hours of business.

James was too indolent, and too much engrossed by self-indulgence to take the trouble of forming an acquaintance which he had no immediate occasion to employ in subservience to his own gratification. Louis, too, he regarded as a poor boy, and, therefore, not a fit companion for him. Frank might have been admitted on a more equal footing, but he seemed to have paired-off with Louis, and no particular motive existed for seeking his friendship, as Richard was at all times ready to do or bear anything for or from his patron; not, however, without a constant eye to his own interests. It may be supposed, that his influence went rather against an intimacy being formed with the other lads, from the apprehension of either proving a rival or a spy. It was customary for all the youths, once a year, to spend a day at the country house of each of the partners, and, excepting on these occasions, they had scarcely met as companions.

It has been said, that Louis had a good education. By this phrase is not meant merely that he had been sent to a good school, and had received classical and general instruction; though such was the case. He had, also, been trained to habits of thought and observation, which are of immense use in application to the ordinary business of life. Good principles had been carefully instilled—principles of truth, justice, kindness. By the precept and example of his surviving parent, and by his reminiscences of the departed, so constantly and attractively depicted before his young imagination, as to acquire the vividness and vitality of personal observation, the boy was early trained to the love and pursuit of 'Whatsoever things are true, honest, just, pure, lovely, and of good report.' The principles of his parents were those of the Bible; and *that*, he was taught to regard as the rule and the test of his actions. The mother of Louis was as much concerned for his temporal well-doing, as the father of Richard could be, yet he never received from her such precepts as: 'Humour this person, pay homage to that one, keep in favour with the other.' Interest was not the main object of her solicitude; nor did she wish to make it the principle of conduct to her child. No: she taught him to be diligent and trustworthy in business; to be obedient, faithful and re-

spectful to his employers, and kind and courteous to all with whom he had to do ; not that he might be well thought of, trusted and promoted, but because it is right. How simple and straight-forward is the course, when this one leading principle is kept constantly in view ! and how often does it prove the direct road to eminence and advantages which are anxiously and laboriously sought in vain in the crooked paths of time-serving and craft !

In Louis, there was nothing particularly striking at first sight — nothing that marked him as a lad of genius, if genius be taken in its ordinary acceptation, as a faculty for successfully taking up a pursuit with little or no instruction or application. This faculty Louis did not possess, but he was observant, diligent and painstaking. It was some time after Richard had been spoken of as a clever lad, that Mr. Stephenson observed to Franklin, "I think that is an honest boy, I mean Louis Chaumier, he can look one in the face, and give a straight-forward, modest answer—not a word too little or too much —and he seems to be always minding his own business, and to have nothing to hide." "That is quite the case, sir," replied Franklin, "I have met with quicker lads, but never with one on whom I could more thoroughly depend. What is given to Chaumier to do, I consider as good as done ; he is no eye-servant." Louis, though he knew it not, had taken a firm step on the ladder of preferment. About the same time, a more visible advancement was conferred on Richard. The place of a superior clerk being vacated, Mr. James Stephenson pleaded for the appointment to be given to the son of his friend, and as the ability and character of the youth were satisfactory, his wish was readily acceded to. Those who had the appointment to bestow, concurred in thinking him fit for the post ; and even among his equals, no jealous rivalry was felt. All was harmoniously adjusted, and Richard proved fully competent to the business with which he was entrusted ; and his post being more confidential than that which he before occupied, left his time more at his own disposal.

Just after Richard's promotion, Mr. Samuel Stephenson employed Louis to make out some lists and accounts, and collect monies on behalf of a society of which he was treasurer. The task was faithfully executed, and the accounts fairly rendered, much to the satisfaction of the employer, who made a liberal present in return for what he deemed extra services. The youth had not so considered them, but had performed them with punctuality and good-will, as an act of duty ; he was, however, not insensible to the approbation manifested in his having been thus employed, and the unexpected reward was truly acceptable, as it assisted him in carrying out his honest desire to support himself, without being burdensome to his mother. The same employment and the same recompense were given him half-yearly, during the whole term of his engagement. Excepting this, which was a private transaction, no direct move was made in the position of Louis, till near the expiration of that term ; probably because no vacancy occurred in a higher department of service ; but he was frequently employed, both by Mr. Stephenson and Franklin in confidential matters, and their general manner towards him, proved that they regarded him as a person worthy of respect and confidence.

After the elevation of Richard, he seemed more disposed, than formerly, to cultivate intercourse with Frank, and even to bring him into the society of James. Richard, when he had a point to carry, was not easily repulsed or discouraged ; and Frank was more distinguished by easy good-nature, and accessibility, than by either penetration or firmness. There was something flattering in the proffered friendship of Richard — a more clever youth than himself — and one standing higher in the establishment—and in the occasional civilities, which even James the prospective master of the concern was induced to render. These were not long plied without producing their effect. Frank became inclined to accept their invitations, and join their parties. He was sincerely sorry that Louis was left out, and hoped he would not take it unkind, if he now and then consented to go without him. Louis was not indifferent to the ordinary recreations of youth, though he was not like James, wholly given to pleasure. Richard, perhaps, had reasons of his own for not wishing to introduce Louis to their familiarity, and he easily persuaded James to keep aloof from him as a poor boy

beneath his notice. Louis did feel the unjust privation, and the implied scorn, but the wound was not very deep or lasting. Well has it been said, '*That* will break a proud man's heart, that will not break a humble man's sleep.' Louis had no very high notions of his own dignity or deserts, and, therefore, was rather disposed to overlook a slight, than to magnify it into an insult. The occasional, and, in time, the frequent, absence of Frank from his society, did not awaken unkind or angry feelings; nor did he give way to dulness and discontent. He was never unemployed, or without an object of pursuit; and the usefully employed are rarely unhappy. Besides, the society of Mrs. Chaumier, dear as it had always been to her son, seemed more than ever delightful, when she was his only companion. But a decided, though gradual, change was taking place in Frank, which could not fail to be observed, and which awakened regret and anxiety, both in the mother and son. On several occasions some act of carelessness or neglect of duty on the part of Frank, had been observed and rectified by Louis, before it had been noticed by the superiors. These acts of spontaneous kindness were gratefully acknowledged, regret expressed for the failure, and resolutions formed for greater circumspection, care and diligence. But the failures became more and more frequent, so that even the daily care of Louis, to look round and set all to rights, could not always screen his friend from deserved censure. At home, too, Frank was less regular in his habits, and had lost much of his habitual cheerfulness and good-humour; he often seemed restless and unhappy. His friends were not hasty to impute evil; in fact, the frequent depression of spirits, and unevenness of temper, so unlike his natural character, were attributed to anxiety on account of his father, whose health was in a precarious, and, indeed declining state. The same circumstance, also, probably withheld Mrs. Chaumier from communicating to the family anything like a painful surmise, and she was still more reluctant to utter a word which might injure the youth in the esteem of his employers; she however kindly and faithfully endeavoured to gain his confidence, and seriously cautioned him, against what she feared might be the beginning of evil. Frank owned that he had not gone on so well, or been so happy of late, as he used to be, before he became so intimate with James and Richard; he did not think they meant any harm, but he believed it would be better for him to be less in their company, and he resolved to return to his old habits of regularity and order. For a short time he did so, and Louis observed to his mother, with great satisfaction, that Frank was quite getting into favour with Mr. Franklin for diligence and attention to business, as well as becoming much more sociable and cheerful at home—he was really like himself. While this improvement lasted, he had been scarcely at all with the other lads, partly through circumstances, partly through his own conviction and resolution. But a public holiday occurring, a pleasure-party was got up, to which Frank received a pressing invitation—he first declined—then hesitated—then complied. He returned home at a late hour of the night, and in a state little fit to attend business in the morning. Whatever might have been the result of this instance of irregularity coming to the knowledge of Frank's employers, was averted by a hasty summons to attend the dying bed of his father. On this melancholy occasion, Frank was absent from business for full a fortnight; during which time, he more than once wrote to Louis, expressing, together with the natural feelings of bereaved filial affection, deep regret at his own instability, and his determination, on his return, to attend more steadily to business, and to keep entirely out of the way of those temptations by which he had been ensnared. In one of these letters, Frank requested Louis to ask Richard for his watch, which he had left with him, the night before he was called away from London. This commission, duly attended to by Louis, was met by Richard with evasive replies, and at last, he expressed his determination to keep it till Frank's return, affecting to have obtained it in a joke, or wager, not yet decided. Meanwhile he began to treat Louis with unusual courtesy; he more than once called on him at his mother's house, and invited him to make one of a party for Richmond. Unwilling even to spurn at offered kindness, though long withheld, and at the same

time almost distrusting some sinister motive, Louis hesitated whether to accept or decline the offer. The point was settled for him, by his being appointed for a fortnight, to take certain departments of service during the absence of Franklin, who had gone on a confidential journey for his employers. The disappointment felt by Louis was not nearly so great as that expressed by James and Richard; for Louis at all times looked upon pleasure as a secondary consideration—one that should never be allowed to compete with duty. By steadily maintaining this principle, he could cheerfully pursue duty, even though it involved a sacrifice of pleasure; and thoroughly enjoy pleasure which brought no reproach of neglected duty.

ON FITS.

BY OLD HUMPHREY.

Though no doctor, I have by me some excellent prescriptions; and as I shall charge you nothing for them, you cannot grumble at the price. We are most of us subject to fits; I am visited with them myself, and I dare say that you are also: now then for my prescriptions.

For a fit of passion: walk out in the open air; you may speak your mind to the winds, without hurting any one, or proclaiming yourself to be a simpleton. 'Be not hasty in thy spirit to be angry; for anger resteth in the bosom of fools.'

For a fit of idleness: count the tickings of a clock. Do this for one hour, and you will be glad to pull off your coat the next, and work like a negro. 'Slothfulness casteth into a deep sleep; and an idle soul shall suffer hunger.'

For a fit of extravagance or folly: go to the workhouse, or speak with the ragged and wretched inmates of a jail; and you will be convinced,—

'Who makes his bed of briar and thorn,
Must be content to lie forlorn.'

'Wherefore do ye spend money for that which is not bread? and your labour for that which satisfieth not!'

For a fit of ambition: go into the churchyard, and read the grave-stones. They will tell you the end of man at his best estate. 'For what is your life? It is even a vapour, that appeareth for a little time, and then vanisheth away.'—'Pride goeth before destruction, and a haughty spirit before a fall.'

For a fit of repining: look about for the halt, and the blind, and visit the bedridden, the afflicted, and the deranged; and they will make you ashamed of complaining of your lighter afflictions. 'Wherefore doth a living man complain.'

For a fit of envy: go to Brighton, Cheltenham, or some other place of the kind, and see how many who keep their carriages are afflicted with rheumatism, gout, and dropsy; how many walk abroad on crutches, or stay at home wrapped up in flannel; and how many are subject to epilepsy and apoplexy. 'A sound heart is the life of the flesh: envy is the rottenness of the bones.'

For a fit of desponding: look on the good things which God has given you in this world, and at those which he has promised to his followers in the next. He who goes into his garden to look for cobwebs and spiders, no doubt will find them; while he who looks for a flower, may return into his house with one blooming in his bosom. 'Why art thou cast down, O my soul? and why art thou disquieted within me? hope thou in God: for I shall yet praise him, who is the health of my countenance, and my God.'

For all fits of doubt, perplexity, and fear, whether they respect the body or the mind, whether they are a load to the shoulder, the head, or the heart—the following is a radical cure, which may be relied on, for I had it from the Great Physician: 'Cast thy burden upon the Lord, for he shall sustain thee.'

HOUSEHOLD ECONOMY.—WINTER CLOTHING.
No. 2.

With regard to the material for dresses, the richer sorts of silks and velvets are suitable for winter wear, but they should be lined throughout and wadded. A thin under-sleeve of fine wool knitted, is worn with comfort and advantage by some ladies,

and is especially expedient in case of occasionally wearing a thinner dress. Delicate females often expose themselves to injury, by laying aside the morning dress of woollen, made high up in the neck, to appear at an evening party in one of thinner material, and which very imperfectly, if at all, protects the neck, shoulders, and upper parts of the arms. If fashion requires the change, prudence should devise means for preventing the mischief. It may be well here to remark, that children are often injured by this kind of exposure. The upper part of the arm is particularly tender and susceptible of cold, and by the fashion of making frocks to fall off the shoulder, that part is left unprotected. Dresses may be made to set quite as prettily without incurring this danger, and even additional protection be afforded to the tender part, by means of a short undersleeve of thin wool or flannel, without in any degree spoiling the appearance.

Of woollen dresses, which are most likely to be adopted by persons in moderate circumstances, French merinoes are perhaps the best, being soft, warm and durable. The produce of British manufacture is now brought to such perfection, as to equal the imported article, and the finest merinoes, and such as are prepared from wool of the best quality, generally go by the name of French merinoes, though no attempt is made to disguise their English origin. In the choice of a merino, and indeed of woollen goods generally, the purchaser should observe, 1. That the texture is firm, yet pliable, and that it feels soft and fine to the touch. 2. That the threads of which it is composed are smooth, equal, and close. This point is best ascertained by holding up to the light. 3. That the colour, whatever it be, is clear, rich, and brilliant, not dingy or streaky. 4. That the selvedges are even, and not stretched beyond the extent of the centre. The price of a good French merino, forty-eight or fifty inches wide, is about 4s. 6d. or 5s. Six yards is an ample quantity for a dress, even on the good old-fashioned principle of laying by enough to new sleeve it. A good ordinary merino, or as it is now called Coburg cloth, which has a mixture of cotton, is a useful article for common purposes: it looks respectable and wears well; the prices vary from 1s. to 2s. 6d. per yard, double width. There are many fancy varieties, some with woven patterns, others with printed patterns; but these are matters of taste and fashion, and do not affect the quality of the article. Plaids or tartans are useful for children's dresses, and for outer garments, as they do not readily imbibe moisture. The prices vary considerably with the quality of the article, but on the whole, plaids may be reckoned rather cheap, than expensive wear.

Concerning going-abroad dresses—shawls, cloaks, spensers, pelisses, &c., it is hard to recommend one in preference to another—all are good in their place. A cloak being apt to fly open in front, requires under it a handkerchief or shawl that sets close round the neck at top, and also hangs down in front. Those who wear a large shawl without a cloak, will find a knitted woollen jacket very comfortable for wearing underneath. Children should be so dressed for going abroad, as to secure the chest and bowels from cold, yet not so as to impede the freedom of their movements. A frosty air does them good, if they are properly protected by clothing, and able to jump and run about so as to keep their blood in circulation. Let it be remembered, no outer clothing can supply the place of flannel near the skin—nor yet of good warm stockings, and well-fitting shoes. Furs form a handsome and suitable finish to a winter dress; but good furs are very expensive, and the warmth they impart, whether as muffs, tippets, capes, &c., is greatly dependent on the wool, horsehair, &c., with which they are lined and wadded. Those who cannot afford costly furs, may obtain or produce very good substitutes, and very decent imitations in knitted lamb's-wool. Kid gloves lined with fleecy hosiery are rather expensive; but woollen gloves, without leather, are moderately cheap. Those who cannot afford the expense of a muff, or to whom a muff would be inconvenient, as they have to carry a child, or a basket, should make a point of wearing warm gloves to preserve the hands from chapping.

As to the head: most people on the approach of winter lay aside straw bonnets, and take to velvet or silk, which certainly look more seasonable; but lightness should not be lost sight of in providing for warmth. If a bonnet sets close, so as to keep out draughts of air from the ears, the material is not of much consequence. Those who cannot afford to change their

bonnet for the season, may promote their comfort by wearing a straight band of knitted wool, to pass over the head, cover the ears, and tie under the chin. A very pretty cap of wool may be easily made, which answers this purpose admirably. Something of this kind is a great protection in railway travelling, which often occasions pains in the face, teeth, or ears. Some of the foregoing remarks may be useful to those with whom economy is an object, and who cannot afford to purchase just what they wish. It is well to know what is the next best thing that is within their reach. There is yet a word or two suitable to such persons. Where flannel cannot be obtained for wearing next the skin, common brown packing-paper makes a good substitute—it has been cut out and made up into waistcoats, and found to last a considerable time. Stockings and shoes for children are very expensive; many parents find them so. The writer has known families of poor children well supplied in this particular by being early taught to knit—knitting is a lively amusing employment for dusk, or for winter evenings. The children referred to, both boys and girls, were taught to knit, and to buy a ball of wool when they got an odd penny, instead of spending it on useless trash. Each child had always a pair of socks or stockings in hand for their own use, and in the course of a year, got so much employment for their odd minutes, as supplied them with shoes ; it never seemed a task to them, but a pleasure and recreation.

In general it should be borne in mind, that flannel next the person, is of more avail in preserving health, than a large quantity of outer furs and mufflings. As to upper garments for gentlemen: these must be left to their own discretion. Those who have attained to the maturity of that valuable quality, will surely eschew all thin light trowsers, and open waistcoats, which in our variable, and often cold and humid climate, are only admissible during the summer months;—they will not face a cutting easterly wind, or a hoar-frost without a great coat (if they possess one,) nor will they walk out, much less stand about in thin shoes; nor, if unavoidably exposed to damp, neglect to change immediately on coming in-doors. Those who are not old enough, or wise enough, to attend to these important matters, for themselves, it may be hoped have a kind watchful mother or sister to care for them.

Those who have frequently to go out of doors, when it would be inconvenient to stay for putting on gloves, may do much to avoid chapped hands, by the following simple precaution :—After washing the hands and wiping them on a towel, rub them till perfectly dry with a bit of flannel. The flannel itself must be thoroughly dried after every time of using, or it will not answer the purpose. This may be easily managed by keeping two bits of flannel, one dry on the washing-stand or sink—one drying near the fire.

In purchasing clothing, those whose resources are limited, would do well to remember that goods of last year's fashion, though quite as warm and strong as the newest vogue, are generally sold at a much lower price. Finally, let the poor, who purchase for themselves, and the rich, who wish to help their neighbours, never forget that it would be greatly to the advantage of all parties concerned, if the money that is spent on stimulating drinks, were laid out on warm, durable winter-clothing.

RECIPES.

Different modes of dressing Fish.—As fish in general, and especially some particular kinds, as mackerel, herrings, &c., come in a glut, and are either very scarce or very abundant, it is desirable that those who would not think of purchasing fish when scarce and expensive, should know how to make the best of it when it is plentiful and cheap.

For dressing fish, one of the least expensive and most profitable methods is to bake; because by this manner a large quantity may be cooked at no more trouble or expense than a single fish. Clean the fish, and pack them close in a deep pie-dish or platter, sprinkling salt and pepper, between each layer of fish with or without the addition of bread-crumbs and a little nutmeg. If these are added, they may be sprinkled among and at top of the fish, or the fish may be stuffed with them ; a little parsley and thyme may be added, if approved. If no bread crumbs, dredge with flour. Bake one hour in a moderate

oven, rather brisk than slow. A small bit of butter is an improvement, but not necessary. No liquor is required, but if a little gravy of roast-meat is at hand, it very much enriches the dish. Water, or poor liquor to be avoided. This method is applicable to almost any kind of fish. It is certainly the best, as well as least troublesome way of cooking plaice, skate, or thornback. Large eels, either whole, or cut in pieces as for frying, are excellent done thus, as also conger-eel. Fish thus cooked eats well cold, and will keep (in moderate weather,) a day or two. If again set in the oven, so as to become hot through, it will be as good as if fresh dressed. Frying is expensive, both in fat, firing, and time ; and moreover, it is not easy to get a thick fish done through without overdoing the outside. All this is met by the plan of baking. A large quantity of fish may be done for one penny, and better done, and served hotter than they generally are by plain cooks.

To bake and pickle Mackerel.—Take off the heads, slit the fish from the gills to the vent, take out the roes, and thoroughly clean the fish, taking care to remove the blood which settles within the back bone. This is most effectually done by running along the bone a finger dipped in salt. Sprinkle the inside of the fish with pepper, salt, and allspice. Replace the roes, pack the fish close in a deep dish or pan, cover with equal parts of cold vinegar and water, and to six fish allow two bay leaves. Over the top, tie strong *white* paper doubled, or still thicker. Bake one hour in a moderate oven. On withdrawing from the oven, immediately remove the paper, and set the fish in a cool place. When perfectly cold, they should be kept covered up, either with paper, or with a lid or plate to fit the pan. They are very good for eating hot, but will keep good several days. If required to keep very long, use only vinegar in the pickle, and, as soon as cold, remove the fish into a wooden tub (like a salmon kit) with a lid. Herrings and sprats may be done in the same way, also eels and flat fish. Observe, it is particularly important to have all fish for pickling very fresh.

To pickle Salmon.—If it be merely the remains of what has been served on table hot, the following simple method answers well. Clean the bones and fins, and lay them at the bottom of a deep jar or tureen that has a lid. Any real gravy that has run through the fish-drainer should be added, but not any of the liquor that the fish was boiled in. Then lay the meat above, and as much cold vinegar as will cover it. The bones and fins enrich and mellow the vinegar, and in a day or two it has all the richness and flavour of true pickled salmon. Be very careful to exclude air. The following is said to be the method of pickling by those who supply the London markets. Clean the fish carefully as soon as caught, remove the eyes and gills, but do not scale it. Cut it in pieces of about eight inches in length. Of the following brine or pickle make just enough to cover the fish : two quarts of spring water allow 2 lbs. of salt, and $\frac{1}{4}$-pint of vinegar. Boil or bake slowly. It should not be done quite so much as for eating hot. The rule for the latter is, when the fins pull out easily : for pickling they should not quite do so. When done, drain off all the liquor, and when cold lay the fish, piece by piece, in a kit or small tub, which should be very clean and perfectly dry. Pack the fish as close as possible, and strike the kit with a mallet, that the fish may be shaken down, and the kit made to contain as much as possible. Fill up the kit with best vinegar, and liquor in which the fish was cooked, in equal parts. (N.B. If all vinegar and no liquor, it will keep better.) When the tub will receive no more, head it as closely as possible. Whenever it is opened to take any out, close again as quickly as possible, and keep in a cool dark place. As the pickle shrinks, add a little fresh vinegar.

The following, though it would not look so handsome for sale, is excellent for family use, and keeps longer than by any other method :—Clean and scale the fish, remove eyes, gills, roe, and liver. Pack in a deep pan, sprinkling pretty freely between every layer with the following : common salt, 1 lb. ; moist sugar, $\frac{1}{4}$ lb. ; saltpetre powdered, 2 drachms, mixed well together and dried. Tie over and bake. Remove the covering as soon as taken out of the oven, and let the fish cool quickly. When quite cold, pack it in a kit, pour over what gravy is in the baking-dish, and enough cold vinegar to cover the whole. Keep as above. The same methods of

pickling will apply to sturgeon, mackerel, herrings, and sprats.

To kipper Salmon.—Clean and scale the fish, but do not wash it. Split it down the back and remove the bone; (the bones will make a nice picking if broiled or baked.) Lay the fish in the following pickle:—Salt and sugar, equal parts; to 1 lb. of each of those, ¼ oz. each of ground pepper and saltpetre. Let it lie in salt 2 or 3 days, during which time it should be pressed down with a board on which heavy weights are placed; then stretch each piece on a stick, and either smoke or dry. Haddock, cod, whiting, and ling, may be done in the same way.

To salt and smoke Herrings or Sprats.—Wipe them very clean, and draw out the gills, and whatever comes away with them; also remove the eyes: (sprats require only wiping) salt them with the same ingredients as salmon; to herrings allow 24 hours, to sprats 12 or 14 hours. Run sticks through the eye-sockets, and so hang the fish over an old cask half filled with dry deal sawdust, in the midst of which thrust a red-hot iron.

To pot Herrings.—The meat is richer and keeps better if baked than boiled. Whichever plan is chosen, sprinkle with 2 parts salt to 1 part sugar, and be careful not to overdo; rather less time will suffice than if they were for eating hot. When cold, pick off the meat quite free from bone and skin. Chop and pound in a marble mortar. To 1 lb. of meat allow 2 oz. of fresh butter, which work to a cream with the hand, then beat it with the fish-meat, at the same time seasoning to taste with salt, grated nutmeg, or pounded mace, and cayenne. Beat the whole to a paste, and put it into small pots with lids; cover the top of each with a thin coat of melted butter or mutton suet; shut down, and gum a strip of paper round each jar to cover the edge of the lid. Lobsters, shrimps, prawns, are prepared in the same way, and are yet more highly esteemed.

To preserve Beef, Mutton, &c., for a length of time without salt. After well examining and wiping the meat, put it into a pan, and pour treacle over it, in which turn it daily, taking care that every part becomes coated with the treacle. Tie a cloth over the pan, and set the whole by in a cool place until the meat is wanted: it must then be washed before cooking.

To preserve Eggs.—Prepare a box or cask of a sufficient size to contain the eggs to be preserved. Let it be quite dry; spread a layer of *wood-ashes* about two inches in depth over the bottom, and upon this place the eggs on their side, as many as the space will admit, but be careful that they do not touch one another. Then throw in more ashes and form another bed, and lay down the eggs as before. In this way the cask or box may be filled, and if set by in a dry cool place, the eggs will keep sweet all through the scarce season.

Irish-Stew.—Take a pound of lean mutton (or meat that has previously been cooked will do), cut it in pieces, lay it at the bottom of a stew-pan with a very small piece of butter, and a cup full of gravy or rice-water; slice and peel six large onions, add them, with two pounds of potatos, also sliced; season with pepper and salt, and let the whole boil gently for some hours, when a very agreeable dish will be produced.

Luncheon-Cake.—Take a pound of patent flour, a quarter-pound of moist sugar, a quarter-pound of currants, a few drops of essence of lemon, grate a little nutmeg, and add an egg well beaten. Previously place a quarter-pound of lard or butter in the oven; when melted, add to it a cup of new milk, pour it over the flour, and mix into a stiff paste—put it in a tin, and *immediately* place it into rather a slow oven, and bake for an hour and a-half. This cake may be agreeably varied by using grated lemon-rind or candied-peel, instead of currants.

Boiled Rice-Pudding.—Take a cup full of rice, add a little salt, put it into a saucepan, and pour over it a pint and a-half of cold water, let it boil gently until all the water is absorbed. Carefully wash two ounces of currants, mix them amongst the rice, grease a pint basin, and fill it with the rice: it will require an hour's boiling. An agreeable variety may be made by adding sliced apples instead of currants. If required for company, the puddings should be boiled in small cups, with sweet sauce poured over them; five or six would be required, and they form a very pretty and inexpensive dish.

Rice-Fritters.—6 oz. of rice, and 5 eggs. Boil the rice, till quite soft, in as

much water as it will take up. When nearly cold, add the eggs, well beaten, and season with pepper and salt, frying it, on both sides, with butter, in fritters, (cakes about 4 inches broad and ¾ inch thick,) of a brown colour, and serving with brown sauce.

Onion and Sage-Fritters.—5 oz. of onion, 1 tea-spoonful of powdered sage, 4 eggs, and 4 oz. of stale bread. Soften the bread thoroughly, in a dish, with a little boiling water, covering it over, and letting it soak for an hour ; then mash it with a fork, picking out the hard pieces ; and having boiled the onion in two or three waters, till quite soft, chop it small, add the powdered sage, a little pepper and salt, and the eggs, well beaten. Mix this intimately with the bread, and fry the whole in fritters, serving with brown sauce or apple sauce.

Patent Flour will be found very useful when tea cakes, light dumplings, &c., are wanted in a house. The dumplings, which should not be large, are made by merely working the flour into a stiff paste with water, and then boiling the usual time.

To make Yeast.—Boil 1 oz. of hops in 5 pints of water, pour it upon 1 lb. of malt ; when nearly cold, add a pint of made barm or yeast. When the malt and hops have risen to the top, (in a few hours,) strain and squeeze it through a coarse cloth ; bottle the liquor closely up, and it is ready for use. Knead your dough overnight, and it will be ready early in the morning. About a pint to a stone of flour.

To clean Silks. — A quarter-pound of soft soap, a tea-spoonful of brandy, a pint of gin. Mix all well together. With a sponge or flannel spread the mixture on each side of the silk without creasing it. Wash it in two or three pails of cold water, and iron on the wrong side when rather wet.

Clothes-Posts soon decay at the bottom if left standing in the ground, but if fitted into sockets so as to be removeable, they will last for years. The sockets should be made of 1-inch elm, 18 inches in length, tapering downwards. When finished, they ought to be about 3 inches square inside, at the upper end. They are to be driven firmly into the earth till just level with the surface ; the posts are then made to drop in and stand firm, and can be taken out, and put under shelter when not in use. A cover should be fitted to each socket, to keep litter from falling in when the post is removed. A drying-ground should not be too much exposed to the wind, as the violent flapping tears the corners of table-cloths, sheets, &c., and overblown linen feels flabby after mangling.

Ironing. —Shirt-fronts are most conveniently ironed upon a deal board about 12 inches long and 8 wide, covered with fine flannel ; to be placed between the back and front of the shirt, after the back is ironed. The skirts of dresses also may be ironed in a similar manner, using a board as long as the skirt, 26 inches wide at one end, and 12 inches at the other. The board should be covered with a blanket, and rest upon a thin block of wood at each end, to keep it from creasing the skirt beneath it.

THE HOUSE-FLY—RATS AND MICE.

The common house-fly it would be vain to attempt to exclude from our houses entirely. Wherever there are food and warmth, there will they find entrance. The only remedy for injuries they inflict on clean paint-work and whitewash, or on the cook's bright dish covers, is to wash and clean them as often as the spots become very apparent, and to cover over such articles as do not admit of being so cleansed.

Kitchens are the favourite resort of the common fly. In these a fly-trap, as it is called, may be used to attract the fly to settle upon it, rather than upon the walls or ceiling. Flies seem to incline to settle more on suspended objects than on any other; and thence the rise of 'the fly-trap,' which is usually formed of papers of various colours cut out fancifully, in order to render them somewhat ornamental as well as useful.

Fly poison may be procured from chemists ; but there seems little advantage to be derived from its use, as it attracts more flies into a house than it destroys.

All are not alike tempted to taste of it. Quassia and sugar, with a little water, set about the kitchen in saucers, is a poison for flies, and not for human beings, and may therefore be safely used.

Mice and rats are animals well known, and against which our best defence is the cat. In the absence of a cat, traps are employed, of which various kinds are sold in the shops. As neither mice nor rats can harbour where there are no holes for them to take refuge in, great care should be taken to stop up all such where they are discovered; to a neglect of this may be attributed frequent visits from these animals, which might have been avoided. Holes in brickwork should be stopped with Parker's cement. As both mice and rats will gnaw wood, they often make entrances for themselves into places where provisions are kept: as soon as any of these are discovered, the carpenter or bricklayer should be sent for. We object to the employment of poisonous substances for destroying these vermin, on account of the fatal accidents that have been known to result from their incautious use. Rats frequently come from the drains, but the use of proper drain-traps prevents this.—*Encyclopædia of Domestic Economy.*

WORTH OF THE SABBATH.

The Sabbath is God's gracious present to a working world, and for wearied minds and bodies it is the grand restorative. The Creator has given us a natural restorative—sleep; and a moral restorative—Sabbath-keeping; and it is ruin to dispense with either. Under the pressure of high excitement, individuals have passed weeks together with little sleep, or none; but when the process is long continued, the over-driven powers rebel, and fever, delirium and death, come on. Nor can the natural amount be systematically curtailed without corresponding mischief. The Sabbath does not arrive like sleep. The day of rest does not steal over us like the hour of slumber. It does not entrance us almost whether we will or not; but, addressing us as intelligent beings, our Creator assures us that we need it, and bids us notice its return, and court its renovation. And if, going in the face of the Creator's kindness, we force ourselves to work all days alike, it is not long till we pay the forfeit. The manual worker—the artisan, the engineer—toiling on from day to day, and from week to week, the bright intuition of his eye gets blunted, and forgetful of their cunning, his fingers no longer perform their feats of twinkling agility, nor by a plastic and tuneful touch, mould dead matter, or wield mechanic power; but, mingling his life's blood in his daily drudgery, his locks are prematurely gray, his genial humour sours, and slaving it till he has become a morose or reckless man, for any extra effort, or any blink of balmy feeling, he must stand indebted to opium or alcohol. To an industrious population, so essential is the periodic rest, that when the attempt was made in France to abolish the weekly Sabbath, it was found necessary to issue a decree suspending labour one day in every ten. Master manufacturers have stated that they could perceive an evident deterioration in the quality of the goods produced, as the week drew near a close, just because the tact, alertness, and energy of the workers began to experience inevitable exhaustion.

Could we catch the eye of the industrious reader, this is the primary view which we would seek to impress upon him: that the Sabbath is God's special present to the working-man, and that one chief object is to prolong his life, and preserve efficient his working tone. In the vital system it acts like the compensation-pond: it replenishes the spirits, the elasticity, and vigour, which the last six days have drained away, and supplies the force which is to fill the six days succeeding. And in the economy of existence, it answers the same purpose as, in the economy of income, is answered by a savings' bank. The frugal man who puts aside a pound to-day, and another pound next month, and who in a quiet way is always putting past his stated pound from time to time, when he grows old and feeble, gets not only the same pounds back again, but a good many pounds besides. And the conscientious man, who

husbands one day of existence every week —who, instead of allowing the Sabbath to be trampled and torn in the hurry and scramble of life, treasures it devoutly up —the Lord of the Sabbath keeps it for him, and in length of days, and a hale old age, gives it back with usury. The savings' bank of human existence is the weekly Sabbath-day.

Another purpose for which the Father of earth's families has presented the working-man with this day, is to enhance his domestic comfort, and make him happy in his home. If it were not for this beneficent arrangement, many a toiling man would scarcely ever know the gentle glories, and sweet endearments of his own fireside. Idle people are sometimes surfeited with the society of one another, and wealthy people, however busy, can buy an occasional holiday. But though the working-man gets from his employer only one or two days of pastime in all the year, his God has given him two and fifty Sabbaths; and it is these Sabbaths which impart the sanctity and sweetness to the poor man's home. If he has finished his marketing and cleared off his secular engagements on Saturday night, it is marvellous what a look of leisure and bright welcome ushers in the morrow, and what a spirit of serene expectancy breathes through the tidy and well-trimmed chamber. The peace of God lights up the pious labourer's dwelling, and reserved from a toil-worn week, the radiance of true love pours forth in the gleams of Sabbath sunshine. With graceful tint it touches the deal chairs and homely table, and converts a fathom of gay carpet into 'a wonder of the loom.' It plays irridescent among the quaint ornaments of the mantel-shelf, streams over the hearth-stone, and perches on the eight-day clock —the St. Elm of rough weather past— the omen of good days to come. It penetrates affectionate bosoms, and revives old memories deep and tender, which, but for such weekly resurrection, might have died for ever; and with early interest and endearment, it suffuses that which on Sabbath morns is always young, and reminds the proud possessor of that wealth of quiet wisdom and thoughtful kindness with which the Lord has blessed his lot. And in the thaw of friendly and thankful feelings, in the flow of emotions cordial and devout, silent praises sparkle in the eye, and the husband's love, and the father's joy well up to the very brim.

'Hail, Sabbath! thee I hail, the poor man's day:
On other days the man of toil is doomed
To eat his joyless bread, lonely; the ground
Both seat and board, screened from the winter's cold,
And summer's heat, by neighbouring hedge or tree:
But on this day, embosomed in his home,
He shares the frugal meal with those he loves;
With those he loves he shares the heartfelt joy
Of giving thanks to God.'

North British Review.

GARDENING AND RURAL AFFAIRS.

PROPAGATION AND GRAFTING.—The chance of possessing a valuable or desired variety of either fruits or flowers, often depends upon our being able to propagate it, that is, if the mode of increasing such things be understood, for cuttings, scions, or buds are frequently to be procured, when perfect plants are out of the question; the advantages which such knowledge occasionally confers are obvious, and therefore the following hints may be serviceable.

Grafting is the union of two distinct kinds, so that one is made to bear the other: it is effected in various ways, known in the profession as cleft, saddle, crown, whip and root-grafting, with some other modes; the first, third, and fourth methods are the most used, and for the propagation of fruit trees and other ordinary plants, are fully sufficient. The tree on which the addition is to be made is called the stock, while the new piece is termed the graft or scion. Grafting of deciduous species (those which shed their leaves) is best done a short time before the season's growth commences, the sap then flows rapidly, and the union takes place quicker and more certainly than at other times. Upon evergreens it is usually done in autumn, advantage being taken of the descending sap. Cleft-grafting is by far the easiest, and in the hands of a beginner most likely to succeed; it is not, however, so neat in appearance, because of the one-sided position of the scion; it is done by cutting a long tapering notch on the stock, into which the base of the scion is fitted, by cutting it in the form of a triangular wedge. Crown-grafting is a modification of the cleft graft, and is usually performed upon old trees, that have become unsightly and require renewing in

the head. To illustrate both with a familiar example, we will instance an old apple-tree, of an inferior kind, or diseased in the branches, in both cases to be improved by the formation of a new head In March, all the branches are to be cut completely away close to the main stem, and after paring the bark a little smooth, so as to take off the greatest irregularities, we proceed to crown-graft it. Having the scions cut from the young wood of a healthy tree, in lengths of about seven or eight inches, two sides of the lower end of each is to be cut tapering towards the bottom for about three inches of the length, so as to leave a sharp angle or ridge between the two pared sides, just as a stake is sharpened to drive into the ground. A cleft is then to be cut at the top of the stock, which will hold the angular side of the graft, so that the edges of the bark on it may fit exactly into those of the bark on the stock; the success of the operation depends entirely on the degree of nicety with which this fitting is effected; it is by the bark the union is made, and to join properly, or at all, it is necessary that they touch at every part; several grafts may thus be placed on one stock, according to its size, and after tying them securely in their places with bass or worsted, the upper surface of the stock, and the point of junction between it and the scions, is to be covered with well-wrought clay.

Whip-grafting is decidedly the best for propagating young trees, or indeed any thing else in which the diameter of the stock does not greatly exceed that of the scion, because, if neatly performed, the after-growth conceals the union, and the two are thus thoroughly incorporated. To continue the illustration, we willthis time take a young apple-stock, of some three or four years old, having a stem of less than an inch in diameter; this is to be cut off about six or eight inches from the ground, giving a slight upward direction to the knife, and on the lower side of this sloping cut, the scion is to be fixed. Grafts of the description before mentioned being at hand, pare off three inches from the lower end, so as to leave the remainder like a *flat* wedge, by entering the knife at the proper height on one side, and bringing it gradually towards the opposite, to come out exactly at the bottom. The graft is prepared at one cut, which is always better than repeating it, as it is essential the cut surface should be quite smooth. A slice is then to be taken off the stock of a corresponding size, sloping it upwards, that when placed together, the edges of the bark may again meet in every part, and the scion occupy the place of the head of the stock which has been cut away. It is sometimes impossible to make both sides of the graft fit exactly, but at least one side must be correct in this respect. A tongue is sometimes made in the graft, but as it is of no benefit, we shall not recommend its adoption. The severed parts being brought as nearly as possible in their places, they are to be bound tightly together, and covered with clay, the use of which is to exclude air, and facilitate the flow of sap.

Root-grafting is resorted to only when other modes fail, and in ordinary practice is confined to the propagation of the finer kinds of plants and shrubs; it is, however, one of the most natural and certain methods, and, moreover, has a peculiar advantage, inasmuch as in the absence of stocks, the roots of the same, or any allied plant, may be made available for its increase. Half-ripened wood is the best for scions by this mode, and they are to be united with a piece of root having fibres in a growing state, in the manner of a cleft graft, to be covered either with clay or moss, kept damp, and returned to the ground or potted according to the nature of the subject. A little nursing is of course necessary, because of the check given to the roots; but as soon as they resume their functions the graft grows, and the union is speedy.

Grafting by approach, or inarching as it is commonly called, is certainly the easiest of all, because the scion retains the assistance of its natural parent till established in its new position: by the practised hand, however, it is regarded as a bungling method, only to be allowed in difficult cases. To do it, it is necessary to bring the stock and the plant from which the scion is to be taken together, and, therefore, one or other must be grown in pots, or they should be previously planted so near each other that their heads may touch. When the operation is to be performed, bring the two conveniently near each other, and with a thin sharp knife pare away a slice at the point of contact, from the stems of both stock and scion, as long as the nature of the subjects will allow, descending to nearly half their thickness; bind the two new surfaces thus formed tightly together, and cover with clay or moss; the scion is not to be separated from its parent till the union with the stock is perfect. Such things as grapes, roses, magnolias, &c., are thus more easily operated on than by other modes.

Saddle-grafting is most useful for the partial renovation of trees that have become bare in places, and for wall-trees or stone-fruit, is excellent, and very neat in appearance. It is done in spring just before the buds start. Having selected a strong, plump bud (or single eye) on a healthy branch, make an incision just through the bark about an inch below, and another at the same distance above the eye, for about half the circumference of the branch, connect them by longitudinal cuts, and with the flat haft of a budding-knife, or thin piece of bone separate the bark and the bud from the branch. From the

part of the tree it is desired to fill, a piece of bark is to be removed in the same manner, of the exact size of that containing the bud, which is to take its place, and when inserted, should be bound round firmly with bass, and covered with moss, till it begins to grow. So close an union may be thus made, as to be scarcely discernible in a single season, and branches may be thus introduced upon parts of choice trees that were before unsightly and barren.

Directions to Bee-keepers for February.—If your hives have been placed in winter-quarters, and the weather prove mild and open, now remove them to their summer-stands. If on the contrary it be wet, snowy, cold or otherwise unpropitious, you had better keep them sheltered as you have done through the winter. Perhaps the safest guide, as to the time when bees may be allowed to go abroad, is when the crocus, and other early spring-flowers, put forth their blossoms, as this time varies in different situations, according as we approach the northern or southern portions of the kingdom.

Before settling the hives for the summer, weigh them, and note down the weights in a book, you will see by this what quantity has been consumed through the winter; and also be able to tell what feeding they will require, if the spring be backward.

We do not, however, advise feeding yet, as until all probability of frost and snow be past, it would be injurious to excite the bees, as they would fly abroad, where many would prematurely perish; thus diminishing the heat of the hive, which should be preserved as much as possible, in order to facilitate the hatching of the young brood, which now begins to make its appearance.

Keep the entrance to the hive nearly closed, let it be only wide enough for one bee to pass at a time.

This is the best month in the year for purchasing stocks. The bees have lived through the winter, so that you do not run the risk of losing them, as you might have done, by buying them in autumn. You may judge if a stock be a good one, and in a healthy, prosperous condition, by observing, on a fine day, whether many or few bees enter the hive with little golden-looking pellets or balls on their hind legs. This is the farina of flowers, or *bee-bread*, as it is called, which is now collected by the bees for the nourishment of the young, and forms their principal labour at this season. If you see as many as twenty or thirty every minute going in so laden, you may judge the stock is prospering, and regulate your purchase accordingly.

Hives should not be generally removed later than this, as the bees do not readily take to a new situation when the spring is more advanced.

To Carry a Hive.—Let it be placed on a cloth, the ends of which must be carefully tied over the top; if it is to be taken to a distance, the hive so tied up, may be swung on a pole, fastened across a cart from side to side; this prevents the jolting to which it might otherwise be subject, which would disturb the bees, and probably shake down the comb. When arrived at their destination, let the hives be placed on their stands, and if any of the bees have fallen out on the cloth, place them near the entrance, and they will soon find their way in.

Hints to Lovers of Flowers.—A most beautiful and easily-attained show of evergreens may be had by a very simple plan, which has been found to answer remarkably well on a small scale. If geranium branches taken from luxuriant and healthy trees, just before the winter sets in, be cut as for slips, and immersed in soap-water, they will, after drooping for a few days, shed their leaves, put forth fresh ones, and continue in the finest vigour all the winter. By placing a number of bottles thus filled in a flower-basket, with moss to conceal the bottles, a show of evergreens is easily insured for the whole season. They require no fresh water.

Horses—*English breeds.*—It should be remembered that although England surpasses all the world for certain breeds of horses, viz., the London dray-horse, the coach-horse, the race-horse, yet it is more to the crossing of the breed and to the grooming, to which we are indebted for their superiority, than to the race or the climate. In proof of this, it was a common practice in the time of Henry the 8th, to import horses from France into this country, for the improvement of the breed, and there is still a very large proportion of horses in England of a very inferior breed; we allude particularly to the common farm-horse, and the country waggon-horse. They are defective in form, consequently slow in action, and deficient in power. Indeed it is observed by Mr. Lawrence, that this race of horses is formed on the very worst anatomical principles either for strength, beauty, or activity; and that they are far behind the Flemish, French, Scotch, or Canadian, farm-horses.

To Milk Cows.—A cow should be milked *clean*. Not a drop, if it can be avoided, should be left in the udder. It has been proved that the half-pint that comes out *last*, has *twelve times*, I think it is, as much butter in it, as the half-pint that comes out *first*. The udder would seem to be a sort of milk-pan in which the cream is uppermost, and of course, comes out last, seeing that the outlet is at the bottom. But, besides this, if you do not milk clean, the cow will give less and less milk, and will become dry much sooner than she ought. —*Cobbett.*

VARIETIES.

Power of the People.—Much as a wise government may do, and it ought to do the very utmost that it can, there is no government, whether conservative, reforming, or radical, which can do the hundredth part of what the people can and must do for themselves, if they are to bear up against inevitable burdens, and recover permanent prosperity.—*Edinburgh Review.*

Land and Labour.—It is the grossest fallacy to suppose, that the landowner can be prosperous, while manufactures decline. Lands, as fertile as those of England, now lie desolate, not by the curse of nature, but because there are no populous cities in their vicinage to render their cultivation profitable. —*Ibid.*

Distillation in America.—It is estimated that the present number of distilleries in the United States, is 10,500; the number of gallons of liquors distilled annually, is 41,502,707, which, if sold at 20 cents per gallon, would produce 80,000,000,000,000 of quarrels, half-a-million of assaults and batteries, one hundred thousand thefts, eight hundred suicides, and about one hundred murders.—*Boston Paper.*

Reading on Railways.—To read when in a railway-train, hold a card or slip of paper across the book over the line below that which you are reading; the eye is then relieved from the disturbance caused by the motion of the carriage, and travellers may read with comparative comfort.

Happiness.—Sigismund, Emperor of Germany, being one day asked what was the surest method of pursuing happiness in this world, replied, "do always in health what you have often promised to do when sick."

The Ocean.—The Atlantic ocean covers 25,000,000 of square miles; the Antarctic, 30,000,000; the Arctic, 8,400; the Pacific, 50,000,000; the Indian, 17,000,000; the Mediterranean, 1,006,600; the Caspian Sea, 160,000; the Black Sea, 950,000; the Baltic, 175,000. Including all inland bays and seas, the ocean comprises 147,800,000 square miles; about three-fourths of the earth's surface. Taking it at two miles deep, the contents will be nearly 300,000,000 cubic miles.

On Listening to Evil Reports.—The longer I live the more I feel the importance of adhering to the rules I have laid down for myself in relation to such matters: 1. To hear as little as possible to the prejudice of others. 2. To believe nothing of the kind till I am absolutely forced to it. 3. Never to drink into the spirit of one who circulates an ill report. 4. Always to moderate, as far as I can, the unkindness which is expressed towards others. 5. Always to believe that, if the other side were heard, a very different account would be given of the matter.—*Carus's Life of Simeon.*

A Smile.—Who can tell the value of a smile? It costs the giver nothing, but is beyond price to the erring and relenting, the sad and cheerless, the lost and forsaken. It disarms malice, subdues temper, turns hatred to love, revenge to kindness, and paves the darkest paths with gems of sunlight. A smile on the brow betrays a kind heart, a pleasant friend, an affectionate brother, a dutiful son, a happy husband. It adds a charm to beauty, it decorates the face of the deformed, and makes a lovely woman resemble an angel in paradise.

To Young Men.—How, after the duties of the day are over, do you employ your evenings? This is a question of importance. If you have no regular employment, no fixed pursuits to engross your attention and operate as a stimulus to the mind when unemployed, you must, of necessity, have many leisure and unoccupied hours—intervals when time will hang heavily on your hands, and suggest the necessity of some means to relieve it of its weight. The very time which is dissipated in idleness would, if devoted to study, enable many a young man to obtain eminence and distinction in some useful art.—*Christian News.*

Wages at Home and Abroad.—According to the Factory Commissioners' Report, an operative works in England, 69 hours for 11s.; in America, 78 hours for 10s.; in France, 72 to 84 hours for 5s. 8d.; in Switzerland, 78 to 84 hours for 4s. 5d.; in Tyrol, 72 to 80 hours for 4s.; in Saxony, 72 hours for 3s. 6d; in Bonn (Germany) 94 hours for 2s. 6d.

Agricultural Society's Prizes. — The Royal Agricultural Society in their last report, offer a prize of fifty sovereigns for the best Essay (and Model, if required,) on the construction of labourers' cottages, and twenty sovereigns for the second-best. They also announce prizes of from three to twenty sovereigns for the best kinds of ploughs; drills for general purposes; corn and turnip-drills; manure distributor; portable threshing-machine; chaff and turnip-cutter; drain-tile machine; horse-hoe and rake; horse and hand-dibbler; liquid manure distributor, and hay-making machine; besides numerous others. Full particulars may be obtained, by addressing the Secretary, Royal Agricultural Society, 12, Hanover Scuare, London.

SELF-IMPROVEMENT;

In Three Lessons.

LESSON III.

"The reward is in the race we run."

In addition to the means of self-improvement brought under notice in our last number, a few other points require attention; after which we may consider the advantages that attend upon persevering exertions. The mind is not to be cultivated at the expense of the body, that is, we are not to injure our health for the sake of reading and study, we must endeavour to be bodily as well as mentally active. Therefore, what we now say is, take walking exercise, get out into the open air; if you have any inclination at all for books, you will relish them the better after having given your limbs something to do. As the poet says:—

"Come forth into the light of things,
Let nature be your teacher."

There is much to be learned that you cannot find in books. If there are public exercise grounds near where you live, go to them every day, if possible, with your children, or make your way to the hills and fields. If you feel dull or discontented at home, a walk will in most cases completely cure you, and inspire you with cheerful thoughts. Besides, if you really cannot like books, some other improving occupation must be found, and a habit of walking even may lead to something still more improving. Perseverance in one thing, as before observed, promotes perseverance in every thing. It is also good and necessary to be clean; and by going to the river to bathe, you may learn the very useful art of swimming. Cleanliness of body promotes purity of mind. You will soon find many rational and enlivening modes of occupation if you watch for them, and however trifling these may appear, they deserve attention.

One most important advantage connected with getting knowledge is, that it gives you freedom. The most ignorant are most the slaves of error and prejudice; they are much exposed to be led astray by their passions or by evil associates. Sound principles, on the contrary, enable a man to walk in the independence of good conduct. This is freedom worth striving for, and it will last as long as your perseverance. Is it not a pleasure to reflect on this privilege; to feel that life has a meaning and a purpose?

Although we have said a good deal about forming habits, yet it must be understood that habits are not character. A man may have prudent habits, and yet be a bad man at heart. What is wanted is, that the outward habit shall be a sign of inward good: when the fruit is good, we believe the tree to be sound at heart. It must be remembered that education can go on without what is called learning or instruction: a man may be moral and intelligent, and yet know nothing of reading, writing, or arithmetic. The getting of knowledge is a good thing in itself; but that is not the end of it; the object is to discipline the mind—to be as much as possible in a condition to think and act aright. We have dwelt the more on this point, because we wish it to be distinctly understood that good conduct may exist apart from book learning; but at the same time, we recommend books to every one.

Self-improvement raises a man. Are you ambitious; do you wish to be respected? Get knowledge: improve yourself. Knowledge gives station, and commands respect. However poor a man may be, should he display any endeavours after self-improvement, he gains a position in the esteem of those who know him, and finds that his power of being useful in the world is greatly increased. To be respected for knowledge and good conduct, is far more gratifying than to be looked up to as the owner of a title. A workman of such a character secures the confidence and approbation of his employers, and has the opportunity of benefiting his fellow-labourers by example; and doing good to others is one very important aid towards self-improvement.

In these times the question most asked concerning a man is: What can he do? It is not simply an inquiry as to being able to do something with the hands, but of ability to think also. He who thinks can make his head work for his hands; one head, in fact, can direct a great many hundred hands. Is it not a pleasure to be able to *think* as well as to *do?* The mere power of working is very greatly increased by the thinking faculty. Is it nothing to be kept from mean and debasing pursuits—is it nothing to be on a track that will lead you into communion with the greatest minds—is it nothing to feel that a lasting source of enjoyment is open to you—is it nothing to have a resource against hours of distress and difficulty, or the fretfulness of age—is it nothing to get up day after day, and feel that you have a fixed and sustaining object before you; one that draws you on from good to better, and from better to best? Is it nothing to feel on this Sunday that you are wiser than on the last—at Whitsuntide, that you know more than at Easter—at Christmas, that you are more persevering than you were at Michaelmas? Are not all these advantages and encouragements—are they not worth some sacrifice and effort? If you can now discharge your duties with promptitude, in place of delaying and putting-off, as once was the case, have you not made a great step in advance? Has smoking, drinking, or gambling anything to compare with this? Self-improvement leads you to find pleasures where you would never have thought of looking for them; your mind is so open to enjoyment that it comes upon you every-where. Familiar circumstances seem to possess a new charm: country walks refresh the mind as well as the body. Of the man going on to self-improvement it may be said:—

> "The meanest flow'ret of the vale,
> The simplest note that swells the gale,
> The common sun, the air, the skies,
> To him are opening Paradise."

Does any one doubt whether these results can be attained; we can refer to numerous examples. Perseverance has accomplished much, and it will accomplish yet more. Columbus, the discoverer of America, was originally a weaver; Niebuhr, the historian, was a peasant; Rollin, well-known for his Ancient History, was a cutler's son; Bloomfield, the poet, was a poor shoemaker; Franklin, one of the most famous men of the last century, who was ambassador from the United States to France, when a young man landed in Philadelphia in search of work with only a few pence in his pocket. The poets Kirke White and Akenside, were sons of butchers. Arkwright, whose invention of the spinning-jenny has created the cotton trade of England, was a barber, and so poor that he could not exhibit his model until his friends had bought him a coat.

Cobbett, too, is a notable example of what persevering industry will do ; at one time a poor peasant boy, then a soldier in Canada studying grammar by the light of a guard-room fire, and enduring great hardships—yet he rose at last to be a Member of Parliament. The Singing Academy of Berlin is the first in Europe ; Zelter, the late director, was a stonemason at his outset in life. We might bring forward a host of other examples, but the foregoing will serve to shew that self-improvement is not a mere empty sound ; the reward in some shape or other must be satisfactory. The humblest ranks, it will thus be seen, have their heroes as well as the titled and noble. Knowledge will obey the call made upon her, whether it be by rich or poor.

Many persons find it agreeable to take their ease, to have nothing to do ; but this is not the state which brings most happiness. Look at the countries that enjoy a climate in which fruits and vegetables grow spontaneously, or with little or no trouble—how indolent, how unwilling to work, the population is. Man gets enough to eat and drink with scarcely any labour, and so wastes his days in idleness, taking no pains to improve himself. But in countries such as Great Britain, where the people are obliged to work hard to make the land produce food, how great is the difference ! Barren soils are converted into fruitful fields, stubborn rocks are made to change themselves into houses and bridges, while a thousand other means of comfort and prosperity are continually produced. All these advantages grow out of the necessity for exertion ; if the people of this country could live without work, they would be as little worthy respect as the Portuguese and Mexicans ; but Providence has seen fit to place them in a position that promotes the virtues of industry.

According to the old adage :—

> Learning is better than house or land :
> For when house and land are gone and spent,
> Then learning proves most excellent.

But the same may be said of any improvement in conduct or character, the excellence will remain throughout all trials. We cannot repeat too often, that education means something besides getting instruction out of books. One excellent help to improvement would be to quicken the reason, to listen obediently to its dictates, striving carefully to avoid rash judgments : this would be true education. In recommending the pursuit of knowledge, we have endeavoured to shew that unaccompanied with goodness it will be but of little real use to the possessor. But the knowledge that elevates the character and purifies the heart, is in itself a great promoter of the perseverance necessary to follow it up ; and this is no slight advantage, for day by day, and hour by hour, it is necessary for us to struggle against the approaches of unwillingness and indolence.

The grand advantage of acquiring knowledge is, that it gives power. Most persons are fond of power, and the most solid and lasting power consists in knowledge. We have been earnest in directing our readers' attention to the subject, because we feel its value and importance, and we are persuaded that the means we have recommended, if faithfully put into practice, will produce beneficial effects. We entertain a hope that our Lessons will not have been written in vain, and in conclusion avail ourselves of a passage from an American author :—'If there is any pleasure,' he observes, 'in exerting an influence over our fellow-men,—in being treated with deference and respect,—in giving wholesome

counsel and imparting useful information,—then cultivate knowledge, which is not only the instrument of pleasure, but the sceptre of power Besides, if you have faith in the disclosures of Divine Revelation, intellectual improvement is not to cease with the present world. It is promised to those who have been faithful to their God on earth, that the veil of flesh which drops at death shall introduce them to a wider and a more glorious scene of intellectual cultivation. It is promised to those who now see as through a glass darkly, who have but obscure hints and imperfect intimations of things, that they shall behold *all* things in the cloudless and unchanging light of eternity.'

PHILOSOPHERS IN HUMBLE LIFE.

Learned he was; nor bird nor insect flew,
But he its leafy home and history knew;
Nor wild-flower decked the rock, nor moss the well,
But he its name and qualities could tell.
ELLIOTT.

THERE is a class of men in Manchester, unknown even to many of the inhabitants, and whose existence will probably be doubted by many, who yet may claim kindred with all the noble names that science recognises. I said, 'In Manchester,' but they are scattered all over the manufacturing districts of Lancashire.

In the neighbourhood of Oldham, there are weavers, common hand-loom weavers, who throw the shuttle with unceasing sound, though Newton's 'Principia' lie open on the loom, to be snatched at in work hours, but revelled over in meal times, or at night. Mathematical problems are received with interest, and studied with absorbing attention by many a broad-spoken common-looking factory-hand.

It is perhaps less astonishing that the more popularly interesting branches of Natural History have their warm and devoted followers among this class. There are Botanists among them, equally familiar with either the Linnæan or the natural system, who know the name and habitat of every plant within a day's walk from their dwellings; who steal the holiday of a day or two, when any particular plant should be in flower, and tying up their simple food in their pocket-handkerchiefs, set off with single purpose to fetch home the humble-looking weed. There are Entomologists, who may be seen with a rude-looking net, ready to catch any winged insect, or a kind of dredge, with which they rake the green and slimy pools; practical, shrewd, hard-working men, who pore over every new specimen with real scientific delight. Nor is it the common and more obvious divisions of Entomology and Botany that alone attract these earnest seekers after knowledge.

Perhaps it may be owing to the great annual town-holiday of Whitsun-week, so often falling in May or June, that the two great beautiful families of Ephemeridæ and Phryganiæ have been so much and closely studied by Manchester workmen, while they have, in a great measure, escaped general observation. If you will refer to the preface to Sir J. E. Smith's Life (I have it not by me, or would copy you the exact passage), you will find that he names a little circumstance corroborative of what I have said. Sir J. E. Smith, being on a visit to Roscoe, of Liverpool, made some inquiries from him as to the habitat of a very rare plant, said to be found in certain places in Lancashire. Mr. Roscoe knew nothing of the plant, but stated, that if any one could give him the desired information, it would be a hand-loom weaver in Manchester, whom he named. Sir J. E. Smith proceeded by coach to Manchester, and, on arriving at that town, inquired of the porter who was carrying his luggage if he could direct him to so-and-so.

"Oh, yes," replied the man, "He does a bit in my way;" and, on further investigation, it turned out, that both the porter, and his friend the weaver, were skilful botanists, and able to give Sir J. E. Smith the information he wanted.

Such are the tastes and pursuits of some of the thoughtful, little understood, working-men of Manchester.

And Margaret's grandfather was one

of these. He was a little, wiry-looking old man, who moved with a jerking motion, as if his limbs were worked by a string like a child's toy, with dun-coloured hair lying thin and soft at the back and sides of his head, his forehead was so large, it seemed to overbalance the rest of his face, which had indeed lost its natural contour, by the absence of all the teeth. The eyes absolutely gleamed with intelligence ; so keen, so observant, you felt as if they were almost wizard-like. Indeed, the whole room looked not unlike a wizard's dwelling. Instead of pictures, were hung rude wooden frames of impaled insects ; the little table was covered with cabalistic books ; and a case of mysterious instruments lay beside, one of which Job Legh was using when his granddaughter entered. On her appearance, he pushed his spectacles up so as to rest midway on his forehead, and gave Mary a short, kind welcome. But Margaret he caressed as a mother caresses her first-born ; stroking her with tenderness, and almost altering his voice as he spoke to her.

Mary looked round on the odd, strange things she had never seen at home, and which seemed to her to have a very uncanny look.

" Is your grandfather a fortune-teller ? " whispered she to her new friend.

" No," replied Margaret, in the same voice, " but you're not the first as has taken him for such. He is only fond of such things as most folks know nothing about."

" And do you know aught about them too ? "

" I know a bit about some of the things grandfather is fond on ; just because he's fond on 'em, I tried to learn about them."

" What things are these ? " said Mary, struck with the weird-looking creatures that sprawled around the room in their roughly-made glass-cases.

But she was not prepared for the technical names which Job Legh pattered down on her ear, on which they fell like hail on a skylight ; and the strange language only bewildered her more than ever. Margaret saw the state of the case, and came to the rescue.

" Look Mary, at this horrid scorpion. He gave me such a fright : I am all of a twitter yet when I think of it. Grandfather went to Liverpool one Whitsunweek, to go strolling about the docks, and pick up what he could from the sailors, who often bring some queer thing or another from the hot countries they go to ; and so he sees a chap with a bottle in his hand, like a druggist's physic-bottle ; and says grandfather, ' What have ye gotten there ? ' So the sailor holds it up, and grandfather knew it was a rare kind of scorpion, not common even in the East Indies, where the man came from ; and, says he, ' How did ye catch this fine fellow, for he wouldn't be taken for nothing I'm thinking ? ' And the man said as how, when they were unloading the ship, he'd found him lying behind a bag of rice, and he thought the cold had killed him, for he was not squashed nor injured a bit. He did not like to part with any of the spirit out of his grog to put the scorpion in, but shipped him into the bottle, knowing there were folks enow who would give him something for him. So grandfather gives him a shilling."

" Two shillings ! " interrupted Job Legh, " and a good bargain it was."

" Well ! grandfather came home as proud as punch, and pulled the bottle out of his pocket ; but you see the scorpion was doubled up, and grandfather thought I could not fairly see how big he was. So he shakes him out right before the fire ; and a good warm one it was, for I was ironing, I remember. I left off ironing, and stooped down over him, to look at him better, and grandfather got a book and began to read how this very kind were the most poisonous and vicious species, how their bites were often fatal, and then went on to read how people who were bitten got swelled, and screamed with pain. I was listening hard, but as it fell out, I never took my eyes off the creature, though I could not ha' told I was watching it. Suddenly it seemed to give a jerk, and before I could speak, it gave another, and in a minute it was as wild as could be, running at me just like a mad dog."

" What did you do ? " asked Mary.

" Me ! why, I jumped first on a chair, then on all the things I had been ironing on the dresser, and I screamed for grandfather to come up by me, but he did not hearken to me."

" Why, if I'd come up by thee, who'd ha' caught the creature, I should like to know ? "

" Well, I begged grandfather to crush it, and I had the iron right over it once,

ready to drop, but grandfather begged me not to hurt it in that way. So I couldn't think what he'd have, for he hopped round the room as if he were sore afraid, for all he begged me not to injure it. At last he goes to the kettle, and lifts up the lid, and peeps in. What on earth is he doing that for, thinks I; he'll never drink his tea with a scorpion running free and easy about the room. Then he takes the tongs, and he settles his spectacles on his nose, and in a minute he had lifted the creature up by the leg, and dropped him into the boiling water."

"And did that kill him?" said Mary.

"Ay, sure enough; he boiled for longer time than grandfather liked though. But I was so afeard of his coming round again. I ran to the public-house for some gin, and grandfather filled the bottle, and then we poured off the water, and picked him out of the kettle, and dropped him into the bottle, and he were there above a twelvemonth."

"What brought him at first to life?" asked Mary.

"Why you see, he were never really dead, only torpid—that is, dead-asleep with the cold, and our good fire brought him round."

"I'm glad father does not care for such things," said Mary.

"Are you? Well, I'm often downright glad grandfather is so fond of his books, and his creatures, and his plants. It does my heart good to see him so happy, sorting them all at home, and so ready to go in search of more, whenever he's a spare day. Look at him now! he's gone back to his books, and he'll be as happy as a king, working away till I make him go to bed. It keeps him silent, to be sure; but so long as I see him earnest, and pleased, and eager, what does that matter? Then, when he has his talking bouts, you can't think how much he has to say. Dear grandfather, you don't know how happy we are."—*From 'Mary Barton;' a recently published work descriptive of Manchester life.*

AIR AND VENTILATION.

PART I.

Air and Ventilation: without the one, we cannot have the other; neither can we have life and health.

To understand the matter properly, we must take various subjects into consideration. We ought to know—First, what air is, and the way in which it supports life.—Second, what are the effects of bad air upon the human constitution? and Third, how bad air is to be got rid of, and good air obtained.

Now, to answer the first question: every one knows that fishes live in water; we have seen them, at times, swimming about in the rivers, and to all appearances, enjoying themselves; and we see that they breathe by opening and shutting their mouths and gills. Some fishes live quite at the bottom, and others live far down in the deep sea. So human beings live at the bottom of a deep ocean of air, and move about in it as comfortably as fishes in water; and although we cannot see it, we know by other signs, that it surrounds us.

On perfectly calm days, if we move our hand rapidly backwards and forwards, we feel a cool and gentle blowing; if we move a stick swiftly, we hear a noise; if we move a fan, we feel a draught; thus shewing that we are surrounded on every side by a something, which however yields to our slightest movement. But on windy days we feel greater resistance, and we see that birds do not get on so easily as at other times, and trees bend and wave their branches as though they felt the pleasure of exercise. These effects are produced by air; or, as it is sometimes called, the atmosphere. It is heaviest nearest to the earth, and the higher we ascend the lighter it becomes, so that when travellers have climbed to the tops of high mountains, they have scarcely been able to breathe the light air of those lofty regions. This atmosphere, or ocean of air, rises to the height of forty miles above our heads, and overspreads the whole earth to the same extent, and moves with it in its course round the sun; and if the globe were not so surrounded by the atmosphere every living thing would die,—plants, animals, and human beings.

Having thus shewn that we are always living in air, we come next to inquire what this air is?

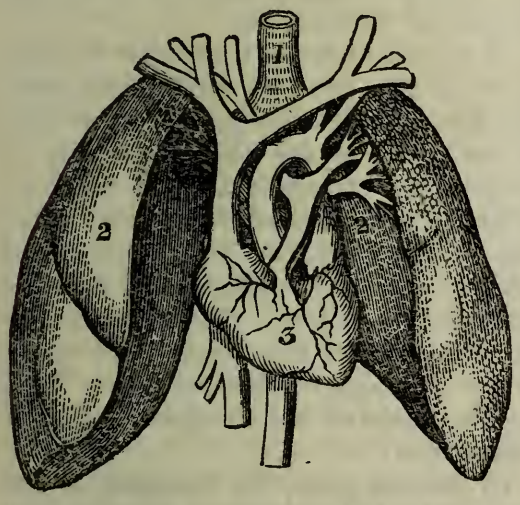
The air, or atmosphere, is made up of

three different sorts of gas ; oxygen, nitrogen (azote, as it is frequently named), and carbonic acid mixed together in certain proportions. Whatever the quantity we weigh or measure, be it large or small, we always find 21 parts oxygen, 79 parts nitrogen, and about one part carbonic acid. This is the air intended to support life ; in these proportions it is pure air, and if circumstances occur to alter these, we are sure to suffer in our health in some way or other. Every thing on earth is specially adapted to this sort of atmosphere, and were it otherwise, with our present constitution, we should none of us be here to know any thing at all about it.

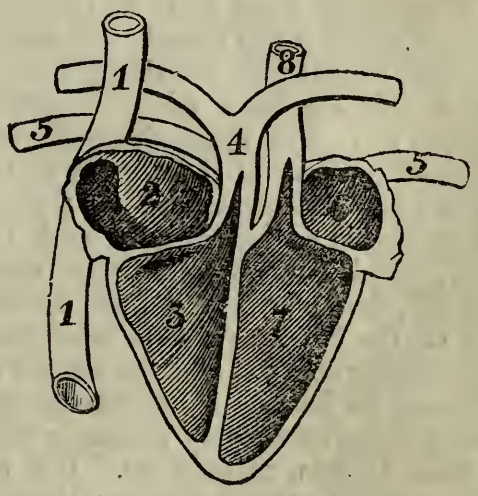
Animals and human beings *breathe* during the whole of their lives ; that is, they keep on drawing air into their bodies, and sending it out again : this is breathing or respiration. A breath drawn in is called an inspiration, and a breath sent out is called an expiration. The air enters by our mouth, and passes down the windpipe, in the throat, into the lungs. Most persons have seen the *lights* of a sheep or pig, with the gristly pipe to which they are attached ; these are the lungs and wind-pipe. By blowing into the pipe, the lungs will be seen to swell up, just as a sponge swells up with water : we might call them, indeed, an air-sponge or bellows. In a man or woman, the lungs are placed on each side of the chest, just within the ribs, and as they are filled and emptied by our breathing, so does the breast rise and fall. The air is no sooner taken in than it is sent out again, but in this short space it has done a very important work ; and what this is, will be our next question.

Between the lungs, rather towards the left side, is the heart, inside of which are four hollow spaces or cells, and we shall presently see what they are for. The heart is so made as to keep on beating, without once stopping, as long as we live ; it beats about 75 times a minute, and with every beat, blood rushes through the four cells, then to the lungs, and is forced through the pipes called arteries all over the body, down even to the ends of our fingers and toes.

After leaving the lungs, the blood flows into one of the hollow spaces in the heart, named the left auricle ; this bag immediately shrinks up or contracts, and forces the blood into another bag called the left ventricle ; this shrinks up in turn, and forces the blood into a large pipe named the aorta, and from this it passes into the arteries. The arteries grow smaller and smaller, until at last their ends are finer than a needle, and like a network. When the blood arrives here, it meets and enters into the ends of the veins, and it is the duty of the veins to carry it back again to the heart. As the veins get nearer and nearer to the chest they become larger ; until at last they pour a stream of blood into one of the bags in the right side of the heart, called the right auricle, this shrinks up, and sends it on to the right ventricle, and this again pumps it into the lungs, from which it makes the round of the body in the same way.



1. Windpipe. 2. 2. Right and left lung. 3. Heart. The veins which carry the blood to the lungs are here shewn dividing into numerous small branches.



1. Vein by which the blood returns to 2. The right auricle. 3. Right ventricle. 4. Arteries by which the blood flows to the lungs. 5. Veins which carry the blood from the lungs to 6. The left auricle. 7. Left ventricle, from which the blood passes into 8. The aorta, and thence over all the body.

This pumping motion is always going on while we are alive ; and is called the circulation of the blood. The vast amount of work thus carried on, beat after beat, pumping the same blood over and over again, may be judged of when we know that the quantity of blood which passes through the heart every 24 hours is nearly 11,000 pints ; more than 24 hogsheads.

We therefore see that, with every beat of the heart, a stream of blood is sent to the lungs, and there is a good reason why it should be so ; for by this means it is kept pure and in a fit state to support life. When the blood enters the lungs, it spreads over all the little holes or bladders with which they are filled. There are 174,000,000 of these bladders in one pair of lungs, and this great number is necessary, in order to make up a very large surface ; in the same way that, by filling a locomotive boiler with tubes, a large surface is obtained for the production of steam. The surface of the human lungs is 440 square feet ; and, as just observed, as soon as the blood enters from the right ventricle of the heart, it overspreads the whole, 75 times in a minute. But in the same space of a minute, a healthy man breathes 20 times, and each time the air penetrates every part of the lungs ; and now the remarkable and important change before alluded to takes place. The blood which comes from the veins, through the heart, into the lungs, is of a dark purple, or almost black colour, owing to its being filled with the carbon, or waste, from those parts of the body through which it has flowed. No sooner, however, does it meet the air drawn in as breath, than the black colour changes to a bright red. The dark-coloured carbon unites with a part of the oxygen of the air, and forms carbonic acid gas ; while the remaining oxygen mingles with the blood, which being thus charged anew with life, flows onwards through the left side of the heart as before described. The carbonic acid gas does not remain in the lungs, we breathe it out through the wind-pipe between every breathing that we make to draw in pure air. It is by this wonderful process that our blood is ventilated, or purified, and made fit to do its work of supporting life in every limb and muscle of the body.

When we breathe out the carbonic gas we send out at the same time a small quantity of watery vapour. We may know this by breathing on a glass, when the vapour will be seen on the surface similar to steam. But the carbonic acid gas is a deadly poison, and, except in the natural proportions, is quite unfit for breathing : a healthy man gives off 50 ounces of this gas in 24 hours, and it is calculated that 4,500,000 lbs. are added to the atmosphere every day by the population of London. It is this injurious gas which collects at the bottom of deep wells, or in brewers' vats : we sometimes hear of people being suffocated by it. A simple experiment will serve to shew one of the effects produced by this :—Take a glass jar nearly full of clean lime-water, blow into it for a few minutes through a straw, and the water will presently have a milky appearance. But if, instead of blowing into it with your mouth, you use a pair of bellows, no such effect will be produced. Yet notwithstanding the large quantity of carbonic acid gas every day added to the atmosphere in various parts of the world, so wisely has Providence arranged that except in particular cases, the air we breathe always contains the true quantity adapted to our life and health, and no more. It is a heavy gas, and spreading itself over the surface of the globe, a large portion sinks into, or is absorbed by the water, and although injurious to man, it is the food of plants. Plants live on carbonic acid gas ; they take up some with water by their roots, and a still larger quantity by their leaves : a process which helps to purify the atmosphere, and make it fit for the support of human life.

It will thus be seen, that unless we draw pure air into our lungs while breathing, the blood cannot be properly purified : unless there be the proper quantity of oxygen, the carbon, instead of being separated from the blood, remains in it, and is carried again over the body ; and should this go on for any length of time many ill consequences follow. These are now to be noticed under the second head stated at the beginning of this article :—What are the effects of bad air upon the human constitution ?

In the first place, the breathing of impure air tends inevitably to shorten life : the body loses its health and strength, the mind its vigour, and becomes feeble and

desponding. People who breathe bad air day after day, are always in a low, nervous state—they are, in fact, but little more than half alive. They fancy that the least whiff of fresh air will give them their death of cold ; they have but little appetite for food, they become pale and sallow in complexion, and cannot bear a sudden noise without a violent start. The effects of bad air in shortening life, are shown to an alarming extent in our large towns ; people who reside in the clean and airy districts live as long again as those who dwell in dirty and crowded neighbourhoods. In the Whitechapel district of London, the average term of life for a person in good circumstances is forty-five years, but for one of the labouring class, it is only twenty-two years ; and in all our large towns the differences are as great, and in some cases greater. Fevers and some contagious diseases generally break out first in dirty, ill-ventilated quarters, and thus the working-classes, whose means of living depend entirely on their health and strength, are the first to suffer. Other distressing and fatal diseases are also caused by impure air, and though there are various causes, such as improper or scarce food, cold, wretched dwellings—yet want of fresh air is the notorious predisposing cause of disordered health. Scrofula, if not produced by impure air, is greatly aggravated by it, and the same may be said of consumption ; besides which, measles, skin-diseases, sore eyes, rickets, are all more or less occasioned or promoted by want of proper ventilation. M. Baudelocque, a French physician, states that in some ill-built villages in France, where the inhabitants breathed the bad air over and over again for months together, numbers of them *died rotten with scrofula*. No matter whether it be in a gentleman's house or labourer's house, if the foul air be not changed, disease will be certain to make its appearance : rich or poor, both suffer from neglect. A hundred years ago, the Lord Mayor of London, two judges, and one alderman all died from a fever which broke out in Newgate, owing to the dirt and want of fresh air. Jails were never ventilated in those days, nor indeed until a much later period, and, as a consequence, were scarcely ever free from what was called jail-fever. On board ships, too, foul air often causes great waste of life : the suffocation of seventy individuals on board the *Londonderry* steamer, on the Irish coast, but a few months since, is a melancholy instance of the fatal effects of breathing foul air. We have heard of persons living in the worst parts of London who had not opened their windows or combed their hair for more than a year ; the air in their rooms was so exceedingly impure and offensive that a benevolent visitor who had called fainted away. A similar result has followed on going into dress-makers' work-rooms, or tailors' workshops, where a great many persons work, sitting close together, and breathing the same foul atmosphere for weeks together. In all other workshops too, where no measures are taken to get rid of bad air ill effects will ensue, and can we wonder that the men are weak and low-spirited, and die early. Town or country, it will be all the same if people will not open their windows and let in fresh air. We have often gone into cottages out in the broad open country, in which the air was as foul as in the dirty alleys of a town ; the inmates seemed to delight in keeping out the free pure air of heaven, blowing around them on every side.

The air is rendered impure by other causes as well as that of breathing, but we shall treat of these in completing the subject in a future number. Meantime, we have shown, that pure air is composed of oxygen, nitrogen, and carbonic acid gas, in certain fixed proportions—that these proportions are such as are fitted for healthy breathing—that unless these proportions are maintained the blood cannot be purified—that impure air makes impure blood, and is one great cause of disease and death :—and our next duty will be to shew that such a state of things need not exist. To quote from the Sanitary Commissioners' Report—'Pure air is so necessary to life, health, and comfort—more necessary, indeed, than food itself, inasmuch as that, without a due supply of it, the best and most abundant food will give neither health nor strength,—that to ensure it in every house occupied by the poor—in every factory, work-house, hospital, or other building made to receive numbers—seems a primary and imperative duty.'

THE BOY.

There's something in a noble boy,
A brave, free-hearted, guileless one,
With his uncheck'd, unbidden joy;
His dread of books and love of fun,
And in his clear and ready smile,
Unshaded by a thought of guile,
And unrepress'd by sadness,—
Which brings me to my childhood back,
As if I trod its very track,
And felt its very gladness.

And yet it is not in his play,
When every trace of thought is lost,
And not when you would call him gay
That his bright presence thrills me most;
His shout may ring upon the hill,
His voice be echoed in the hall,
His merry laugh like music trill,
And I in sadness hear it all,—
For, like the wrinkles on my brow,
I scarcely notice such things now,—
But when, amid the earnest game,
He stops, as if he music heard,
And, heedless of his shouted name
As of the carol of a bird,
Stands gazing on the empty air,
As if some dream were passing there;—

'Tis then that on his face I look,
His beautiful, but thoughtful face,
And like a long-forgotten book,
Its sweet familiar meanings trace,
Remembering a thousand things
Which pass'd me on those golden wings
Which time has fetter'd now,—
Things that came o'er me with a thrill.
And left me silent, sad, and still,
And threw upon my brow
A holier and a gentler cast,
That was too innocent to last.

'Tis strange how thoughts upon a child
Will, like a presence, sometimes press,
And when his pulse is beating wild,
And life itself is in excess.—
When foot and hand, and ear and eye,
Are all with ardour straining high,—
How in his heart will spring
A feeling, whose mysterious thrall
Is stronger, sweeter far than all;
And on its silent wing,
How, with the clouds, he'll float away,
As wandering and as lost as they!

N. P. Willis.

RECIPES.

To relieve Asthma.—Soak some blotting paper in a strong solution of saltpetre, dry it, take a piece about the size of your hand, and on going to bed, light it, and lay it upon a plate in your bedroom. By doing so, persons, however badly afflicted with asthma, will find that they can sleep almost as well as when in health. (Many persons have experienced relief from the use of this specific.)

Waterproof Clothing.—First make the cloak, coat, or trowsers, of *linen*; then soak them well for a day or two in *boiled* oil; then hang them up in a dry place till perfectly dry, without wringing the oil out; then paint them, without turpentine or dryers being in the paint, black, or any other colour you like, and lay the paint on thinly, and let it dry. (This is the method practised by seamen.)

The following recipes are published by an Association for Improving the Condition of the Labouring Classes in Dorsetshire:—

Peas-soup.—Into three quarts of boiling water, put one pint of peas, boil till they are soft, mash them well with a spoon; then add carrots, turnips, three or four onions sliced up, boil for two hours; put in pepper and salt, and thicken with Scotch oatmeal or rice. Soak your peas all night before you use them. If the water is hard, add soda. A bit of pork is very good with it.

Vegetable Soup.—Put a cabbage, turnips and carrots cut up, a bit of celery or a little sugar, into two quarts of water; boil one hour; add three onions sliced, some oatmeal or rice boiled, or crusts of bread, pepper and salt; give it a boil up for a quarter of an hour.

Cheese Stirabout.—One pound of oatmeal, three ounces of salt, half a pound of cheese cut up, two teaspoonsful of mustard, two gallons of water; add your oatmeal with the hand, stir it all the time.

Dumplings.—Let flour and water be stirred up to a paste, add salt, and boil for two hours, in a cloth. The same kind of paste will serve for apple-dumplings.

To Boil Rice dry—Take some rice, cover it well with water, put in a little salt—(the more water the better it boils)

boil for twenty-five minutes—throw off the water, and let the rice dry before the fire.

Boiling Potatos.—Always boil with the skins on. If the potatos are not very good, boil well, and pour off the water, and then boil again in fresh water. When boiled, let the potatos be allowed to dry in a hot pot before the fire.

THE FOUR CLERKS—A TRUE TALE.

CHAPTER II.

During Franklin's absence, Louis had charge of closing after the departure of the work-people. One evening, while thus engaged, he was surprised and startled by the appearance of Richard. "What can have brought you here so late? Is anything the matter?" "Nothing at all, my good fellow, only I want to speak to you. Go on with your work, I shall not hinder, I will wait a few minutes." "Not here, Richard. It is quite time for all to be locked up. I must finish what I am about, and then we can walk together to my mother's."

"Yes; or there is a tavern near at hand, where I sometimes call with young Stephenson. In fact, I should not wonder if he is there now. We can go in and take a glass of negus with him, or a bowl of punch. He is a good-natured fellow, and will readily treat us." "No, thank you, I do not venture into taverns." "What, I suppose mother does not approve of it?" "She does not." "Well, I won't tempt you to displease her. According to poor Frank's account, she is a good sort of body, only rather over-strict. Come, get on. Let me help you;—where do you put those books?" "I am sorry if you think me rude," answered Louis, "but I must beg you to leave the place. My orders are to put away, and look round *after* every person has left the premises." "Well, keep to orders, that is quite right, then you can't be blamed; I am the last that would persuade you to do otherwise. I shall wait for you in the street."

The interruption was by no means agreeable. Louis felt afraid of being thrown off his guard, and neglecting something that he ought to attend to: but having looked round with double care, he closed the last lock, extinguished the last light, delivered in the keys at the dwelling-house, and joined Richard at the door.

"Louis," said Richard, familiarly thrusting his arm within that of his companion, "I want to ask a favour of you. It is more, though, to oblige young Stephenson than myself. We want to borrow a few pounds just for a week or two. Will you help us out?"

"It is not in my power to do it. The little that I have saved is invested." "Oh, you rich careful fellow you! able to invest property before you are out of your time! Why, you will die a miser!" "I hope not. I should be sorry to desire property, except for its real use and enjoyment." "Well, we don't want you to sell out for our little affair. Surely you could accommodate us for a few days, now you are in such a confidential post. Have you not the care of the cash-box? You might easily oblige us without any one being the wiser. We shall be able to return it before old Franklin comes back, and make you a handsome present for the use of it."

"I cannot do it, Richard. Whatever is entrusted to my charge, I must have ready to give up at a moment's notice. I dare not make free with a fraction of it for my own use, or for the dearest friend I have in the world." "That's being very particular, when you are so certain of having it returned in good time, and that it would never be known beyond ourselves." "Right is right—and to deviate from it would be wrong, whether or not any immediate disgrace or inconvenience resulted." "Very true, Louis; I don't blame you for your strictness; you are a right trusty fellow, and I value your friendship more than ever. Indeed, this is all a mere joke. We don't want your money. Young Stephenson has always plenty at command, and I am not badly off; you need not suppose that we are obliged to borrow money. If you had agreed to lend it, we should not have taken it. But to tell you the truth, there is a wager depending on the sturdiness of your resolution, and you have come off with honour

I shall not tell you who is the loser; but you must come in and take one glass with us, just as a pledge that you can bear a joke, and are not offended." "No, Richard, you must excuse me. Into a tavern I will not go. I would wish to bear a joke with good humour, but to my thinking, all wagers are foolish things; and no circumstances can justify one person in tempting another to do wrong, even in jest." "Well, just say you are not offended, and that you will not make mischief of it. I own it was a foolish affair, and am sorry for it." "That is enough. I have no intention of mentioning it. Good night." Louis hastened home with more than common speed. He felt as a bird that has escaped from the snare of the fowler, and though he tried to believe Richard's assurance that the temptation was but a foolish joke, a gloomy misgiving would sometimes cross his mind when the affair occurred to his recollection. On Frank's return, he discovered no inclination to go into company, but Louis could not help noticing that his watch did not make its appearance, and that he was more than once engaged in close conversation with Richard, which appeared not altgogether of a friendly cast.

A few weeks afterwards, Louis, on being sent to the banker's with a foreign bill of exchange, was informed that one of the same set had already been presented and paid. Franklin, one of the least perturbable of mortals, on receiving this unpleasant information, changed colour, paused, groaned, cleared his voice, and fixing on Louis a sad and scrutinizing, yet benevolent eye, said, "Louis, have I ever sent you to present a bill the duplicate of this?" "No, sir, never." "Are you aware of any other person being sent to the banker's during my absence in the country?" "No, sir." "Did you go to the banker's every day?" "Every day, sir." "From whom did you receive your orders?" "Always from Mr. Stephenson, sir." "Did you ever lay down the books and papers between receiving and giving them up?" "Never—I always received them from Mr. Stephenson the moment before leaving this house—went directly to the banker's, and on my return, never laid out of my own hands what I brought back, until I gave them up to Mr. Stephenson, and always waited till he had examined them, and found all right." "Well, Chaumier, your testimony is very clear, and I hope it will prove all right." "I hope so, sir."

Shortly afterwards, Chaumier was summoned to the inner counting-house, where both the partners and Franklin were in consultation. "Chaumier," said the elder partner, "what was your charge during Mr. Franklin's absence?" Louis enumerated his several duties, among which were the receiving and transmitting of all letters, depositing the books in their proper places at night, and taking them out in the morning, extinguishing the lights, locking up all desks and doors, and delivering the keys and cash-box to the senior partner."

"Had you any particular instructions as to the manner of doing these things?"

"Mr. Franklin told me, sir, to deliver every thing into the hands of one of the partners; to see all the people out of the premises before I began locking up; and to answer no questions that might be asked me about any matters entrusted to my care." "Did you at all times strictly observe these directions?" "Yes, sir." "To whom did you deliver the letters on receiving them?" "Always to you, sir, as soon as you came to business, excepting one morning, when Mr. James Stephenson was here early, and took the letters of me."

"What, my son?" inquired Mr. J. S., rather sharply.

"No, sir. Master James was with you, but you took the letters yourself. You met me on the stairs, and desired me to open the counting-house directly, as you were in haste to read a letter."

"True, true; I recollect. It was the day I started for Brighton. That is all right enough, but it throws no light on this awkward business."

"Was any other person in the counting-house after my cousin left it, and before I came?" inquired the senior. "No, sir. Richard Hart spoke to Mr. Stephenson in the counting-house, but did not remain there after him. Mr. Stephenson, Master James, and Richard, all left the counting-house together; and you, sir, immediately entered it from the other staircase." "Oh, was Richard there?" "Yes, sir; Mr. Stephenson desired me to send him up." "Did any person ever look over you as you put away the books and other things?" "No one, sir. I always did it quite alone." The unwelcome visit of Richard flashed

across the mind of Louis; still more vividly when Mr. S. proceeded to say, "Were you ever asked any questions as to where they were kept?"

"Richard came in one evening, just as I was going to clear away, and he slightly asked me where the books were kept. I did not answer his question, but begged him to leave the house, before I began putting away—which he did." "What was his object in coming at so late an hour?"

He wished to speak to me, sir, and as I was engaged, he waited for me in the street, and walked with me part of the way to my mother's." "Have you any objection to mention the subject of your conversation?" "I had rather not, sir, it was merely a joke on me, which perhaps made me more angry than it should have done; but it was fully apologized for, and I should be sorry to repeat it." "He said nothing that in any way connected itself with this transaction?" "Certainly not, sir." "Do you recollect whether that evening was before or after the day of the letters being given to Mr. James Stephenson?" "Before, sir. It was on Tuesday night; *that* was on Thursday morning." "That is enough, Louis; you may go for the present." Louis withdrew, full of painful and perplexing thoughts. In the course of the day, he was again summoned into Franklin's room, and asked if he could recall the number of letters received on the morning already referred to. "I do not recollect it, sir: but I have not destroyed the rough memorandum of accounts kept during your absence; and by that I can ascertain the number of letters received on each day, and to whom directed." "That is well, Chaumier," said Mr. Stephenson; "a regular account is often of great use in eliciting truth, and clearing up mistakes. Let us see your memoranda; I dare say you have no objection?" "None at all, sir. Here they are." "Very well, Chaumier, very well. Now then, call over." Louis did so; each day's letters were counted on the file by Franklin, and one was found deficient. This led to further discussion as to the means by which the missing letter had disappeared.

"If I recollect right," said Mr. S., "some of the business letters were opened, and others were not." "Yes," replied Mr. James, "I began looking over them, but found it would hinder me too long to read them all, and there was no occasion, as you were just coming up." "Can you tax your memory so far as to say whether one of those you examined contained a bill from Vanderhaussen, Voorst and Co.?" "Can't say for certain; but, I really think there was one of that sort. However, all the letters, opened or otherwise, were left on the desk; and if there was any foul play, it must have been after I left the room, and before you entered it."

On examination of the paid bill, the endorsement was found to be an imitation of the handwriting of Mr. S. S., so exact that he himself would not have disputed it, but from the certainty that he *never* gave such an instrument out of his hands without entering a record of the transaction. It appeared, also, that the bill was presented and paid early on the Friday morning succeeding the arrival of the missing letter. The clerk who paid it distinctly recollected the transaction, and the appearance and dress of the person applying for it. The description he gave did not at all answer to that of any person employed by the firm. No farther light was thrown on the subject for so long a time, that the innocent began to fear, and the guilty to hope that it would for ever rest in uncertainty. But at length the banker's clerk happened to recognize in the street the man to whom he had paid the money. He traced him home, obtained assistance, and took him into custody. The man proved to be a waiter at the very tavern to which Richard had in vain endeavoured to introduce Louis, and to which poor Frank had been too successfully enticed; where he had been led to drinking and gambling, and fleeced of his watch, of large sums of money, and many other valuable articles. The disclosures were such as led to the summary dismissal of Richard, and might have led much further, but that it appeared that James was in some degree implicated. On this account, the affair was not submitted to legal investigation, but quietly passed over with an engagement on the part of Richard's father that his son should be immediately sent abroad.

A few months more completed the term of the three remaining youths. James, as a matter of course, remained in the connexion. Frank Marsom returned to the country, and joined his

mother, an active, prudent woman, in managing the business of his late father. This engagement proved very advantageous to the character of Frank. He was fully and responsibly occupied in business of importance, yet not without the guidance of maturer years and wisdom. Louis was retained in the employ of the Messrs. Stephenson, at a liberal salary, and distinguished by frequent tokens of generous approbation.

In course of time, the mother of Mrs. James Stephenson died, and left the bulk of her property to her grandson, now four or five-and-twenty years of age. On this occasion, Mr. James S. ventured to propose that his son should be received into the partnership. Mr. Samuel S. readily admitted the reasonableness of the desire expressed by his cousin, that his son, having arrived at a suitable age, and possessing independent capital, should be brought into the concern ; and declared that he should not at all oppose it, but at the same time expressed his own intention of withdrawing. This was an unlooked-for blow, and Mr. James used all the arguments in his power to induce his partner to alter his determination, but finding him immoveable, he said, "I see how it must be ; if you really are determined to leave us, we must give Franklin a small share in the concern, and so secure his interest and zeal." This gentleman could not appreciate the well-principled and disinterested zeal of faithful services which money can never buy, but he could understand the policy of retaining in his service one who knew how to manage affairs and persons in a way of which neither himself nor his son were capable. That Franklin should decline the honour and advantage intended him, never once entered into the calculation. What, then, was his surprise and consternation, when honest Franklin declined to remain in the concern after Mr. Samuel S. had left it! His wants, he said, were few. He had no one but himself to provide for, and as his salary had been liberal, and he had always been careful of his property, he possessed amply sufficient to make himself comfortable for the remainder of his days. Again and again the judicious senior partner and the valuable foreman were intreated to revoke this determination, even with the proposed understanding that young Stephenson should take no share in the control, and be merely allowed to employ his capital in the business. But the resolution of each was decidedly taken, and the utmost concession that could be obtained was a consent that for one more year matters should go on as heretofore, to allow ample time for further arrangements. As the twelvemonth drew towards a close, the two principals consulted together, and came to the resolution of promoting Louis Chaumier to Franklin's place, as no more than a just requital for his long and faithful services. In due time, the resolution was carried into effect, and Louis received his appointment as superintendent. Young James, recently married, was to reside in the house which Mr. Samuel Stephenson was leaving. But as it was considered indispensable that Louis should be constantly on the premises, a wing of the house was detached for his use, and formed a comfortable residence for himself and his mother. Great hopes were entertained that marriage would do wonders for James. "He is no worse than other young people," said his fond parents, and comforted themselves with the idea. "He has had time to sow all his wild oats, and now he will settle down as a steady, prudent man of business. But the hope was unfounded and delusive. Neither family ties, growing years, nor increased business responsibilities prevailed to cure him of indolence, extravagance, and love of pleasure. About five years after the dissolution of partnership, Mr. James Stephenson was seized with a severe attack of illness. In fact, though not more than fifty years of age, his constitution was broken by irregularity and self-indulgence. For many weeks he laid in a state of bodily helplessness, yet not entirely disabled from attending to affairs. Whether he anticipated speedy decease or protracted inability to return to business, he desired to see Chaumier, and expressing the highest satisfaction in his faithful and valuable services, offered, and even pressed upon him, a share of the business, more considerable than that which he had proposed to Franklin. But Chaumier, like Franklin, declined the offer. He preferred serving the concern at a stated salary to accepting a more brilliant prospect linked with the risks and responsibilities of a partner so little to be relied on as James. It was well he did so. The

elder partner did not long survive the interview; and the junior, on whom the whole devolved, in the course of a few years, by reckless expenditure on the one hand, and rash speculation on the other, brought himself to ruin.

After the downfal of poor James, and when Louis was pondering on the adoption of some new engagement, an overture was made to him by Mr. Samuel Stephenson, for his establishment in business, in connexion with his old friend and companion, Frank Marsom.—The removal of that young man into the country had not been merely for his mother's convenience, nor with entire abandonment of the original purpose of establishing him as a London merchant.—But Mr. Stephenson, observing the yielding temper of Frank, which had already rendered him a prey to the crafty Richard, and would still expose him to danger from the kind of associates left behind, recommended his removal with a view entirely to break off the connexion. The measure had been successful: Frank's character, always upright, kind and generous, had greatly improved in firmness. A younger brother was now of sufficient age to join the mother in her business, and it was deemed a suitable time for Frank to carry out the plan of settling in London.—Now too he received, what he had long before solicited, but which had been suspended on his own propriety of conduct and steady attention to business, the consent of Mr. Stephenson to an engagement with his younger daughter.—The advice of Mr. S. concurring with Frank's high esteem of the character of Louis, and the long cherished friendship subsisting between them, led to the above-mentioned proposal, which was taken into consideration and accepted.—It was the sterling value of Louis's character that was looked to as the most essential endowment—but it also proved that by diligence and care he had saved what amounted to no despicable share of capital; and good old Franklin, who had all along maintained an affectionate friendship with Louis, generously offered to invest any portion of his property in the concern. Whether or not the offer was accepted, the partnership was entered into, and the business for a long series of years well conducted and prosperous.—Franklin, at his death bequeathed his property to be divided between the two daughters of his honoured friend, Mr. Stephenson, and 'the worthy, faithful youth,' Louis Chaumier.—But as Franklin lived to a good old age, the epithet 'youth' was scarcely applicable to Louis, who had attained the prime of life, and who, moreover came into possession of two shares of the bequest, having some years before married the elder daughter of Samuel Stephenson, Esq.

Now let the young reader, starting in the hope of preferment, consider the words of the wise, and apply them to the characters of these four young men:—

'Ability without upright principle is a snare to the possessor, and a curse to all connected with him.'

'Without firmness and moral courage, the kindest dispositions and best intentions may be productive of evil rather than good.'

'In the scale of morals Integrity holds the first place, Benevolence the second, and Prudence the third. Without the first the latter two cannot exist; and without the last, the former two are often rendered useless.'

'The weight of exalted character, will carry it over the want of an exalted station.'

'Nothing will supply the want of prudence; and negligence and irregularity long continued, will make knowledge useless, wit ridiculous, and genius contemptible!'

EARLY MARRIAGES INDUCED BY UNREAL PROSPERITY.

THERE is one point of social economy which if properly attended to, would save people from a lifetime of trouble and difficulty; and this point is, to refrain from marriage until all circumstances are favourable. Marriage is said to be the most important act of a man's or woman's life—how much depends upon it—not only their own welfare, but that of their family; and yet in too many instances it is entered on without any reflection at all. It would appear, indeed, that the poorer people are, the less

forethought do they exercise with regard to marriage: they who ought to hesitate the most, hesitate the least. We commonly find that the wealthy, and the middle classes think well before marrying; they take time to consider; and the question which a young tradesman asks himself is:—can I afford it? It would tend greatly to improve the condition of the working-classes and those in humbler life, if they would exercise the same prudence. We do not mean to say that there are no cases of forethought and good conduct among them, we know that there are many such, which do not need advice; but on the other hand there are thousands who from evil example, or imperfect education, never give a thought to the importance of the subject—and to whom a word in season may be useful.

Among persons of little or no education, the notion too often prevails that whatever their desires, they ought to be gratified. Individuals with but small weekly wages, will indulge themselves in eating and drinking of the best that can be bought, because, as they say, they have as much right to enjoy themselves as their betters. In one sense this is true; yet no man, whether rich or poor, has a right to expend his means improvidently; if, as is mostly the case, he thereby incur the risk of becoming a burden to his friends, or to society at large.

Prudence in regard to marriage would, while promoting the virtues of self-denial, improve the condition of those of scanty resources:

> 'When poverty comes in at door,
> Then love flies out at window,'

is a well-known phrase, and the prospect one which might well make man or woman take time to consider. Often the motive to marriage is no higher than that of mere animal passion, or a sudden whim, or because wages rise: the consequence is a multitude of sickly and neglected children, some of whom survive to follow out the same unhappy course. Sometimes parties attempt to excuse an improvident marriage by saying, that 'Providence never sends mouths without sending bread to fill them;' forgetting that very frequently all the bread goes to one house, and all the mouths go to another. We have heard of a labourer marrying, who earned at the time less than a shilling a day; and of a girl whose plea was that she had got 'a whole boll of potatos.' Although we may smile at these cases, they are deplorable evidences of want of proper education. We do not know who introduced the adage: 'Marry in haste and repent at leisure;' it was doubtless some one who had seen many instances of ill-assorted or improvident marriage.

We would give the true and pure feelings of the heart every encouragement; but we cannot think that rash marriages are a proof of their existence. The desire to possess a home would actuate many persons; but if there are not means to maintain a home, it will be better to wait. What man that truly loves the woman of his choice would wish to see her in the condition of a poor household drudge, which she must be, if they marry with no other provision than sanguine expectations. The glad excitement is soon over — but the miseries of struggling poverty not unfrequently last for the rest of life. Abstinence we may be told would imply a doubt of Providence, but we believe that proper exercise of reason is one of the best signs of trust in Providence. We do not say, don't marry! we only recommend caution. If men would wait to the age of 27 or 28, and women to that of 22 or 25, there would be a vast decrease of domestic wretchedness.

All men and women need necessaries of life—(1) Water. (2) Food. (3) Physic. (4) Clothing. (5) Firing. (6) Lodging. (7) Cleansing. Now, all these are points well worth consideration by those who contemplate matrimony; let them calculate whether their means will suffice to provide all these requisites. They should consider too that their family will need education, which will furnish an additional motive for self-denial. Let them follow this up for a few years, and place their spare earnings in a savings' bank, they may then look forward with tranquil minds to the true comfort and advantages of wedded life.

The number of marriages, we are informed, depends in a great measure, if not altogether, on the commercial state of the country. When trade is brisk, and affairs look promising, there is a great increase, but in a bad season the numbers fall off. Those who can remember what has been the condition of the country, during the

past ten years, will see from the following table, that this statement is borne out by the facts. In the year 1838 there were 118,067 marriages:

In 1839	...	123,166
1840	...	122,665
1841	...	122,496
1842	...	118,825
1843	...	123,818
1844	...	132,249
1845	...	143,743
1846	...	145,664

Here we find that in 1842, the number was but a few hundreds beyond that of 1838, a pretty convincing proof that we were then suffering under a touch of hard times: as the official report states, 'The fluctuation in the marriages of a country expresses the view which the great body of the people take of their prospects in the world. And judged by this test they never were more sanguine than in the years 1844 and 1845.' Wheat, which was seventy-one shillings a quarter in 1839, was at fifty shillings and fifty-one shillings in 1843-4-5. The funds went up; and at one time, in 1844, 3 per cents. rose to 100. Besides which, those grand changes in commercial law were made, and great quantities of foreign produce were admitted at a low charge, or free of duty. 'Enterprise awoke; money was called for, and labour was set in motion on all sides with the real and imginary capital current. Great numbers of persons were engaged on the railways, a new field of labour on which the Chancellor of the Exchequer has stated that six millions of pounds were expended in 1844, and fourteen millions in 1845. Under these circumstances, 50,000 more persons married in 1845 than in 1842. Few examples occur of such an increase in the marriages in England since the year 1754.'

'It is invariably observed, that any extraordinary increase of marriages, or any augmentation in the consumption of the stimulants, comforts, or necessaries of life, not always within the reach of the great mass of the population, is followed by a corresponding falling off. The ship raised on the crest of the wave, is not surer to plunge, than this prosperity to subside; and it is evident from the facts already adduced, that though a nation may be rising, it never behoves the wise and sober to be more on their guard, more alert, or more liberal in giving good counsels, than when thousands of the people are setting up in business, establishing families (for every marriage is the foundation of a family), and consuming an unusual amount of luxuries. This 'prosperity' may be the dawn of progress, or the riotous forerunner of ruin! A cause of crises is the rapid accumulation of profits in trade; speculation begins; expectations are raised. Tradesmen and merchants take capital from their usual business to embark for the new Eldorado. Professional men and annuitants invest part of their incomes. The public enthusiasm is fanned by unprincipled sharpers. Scrip and paper money afford extraordinary temptations and facilities for speculation. Men with no capital, buy and sell their shares; men with little capital go beyond their limits; and men of large capital, undertake responsibilities to which no capital is equal. Large numbers of people are employed. Wages, salaries, fees, fly about in every direction. 'Eating and drinking, marrying and giving in marriage,' go on at an accelerated rate. At last the bubble bursts; prosperity is found to be a fever, and speculation destruction of capital; and thousands ultimately are forced to admit the truth of the precept, 'Make not haste to be rich.'

The marriage-register is said to furnish a key to the state of education of the parties who marry. For instance, in 1846, there were 47,488 men, and 70,145 women, who signed the register with marks. Perhaps a few of them could write, but very badly; still it is a melancholy reflection that nearly 120,000 of those who every year undertake to bring up a family, should not be better qualified for the task. It is a fact that demands attention, that in England at this day there should be of those who marry, two out of every three men, and one out of every two women, unable to write. We are quite willing to believe that persons may be deficient on this point, and yet be sensible and well-conducted. But not knowing how to write, implies a want of knowledge of other matters equally important, and leads us to ask whether the children of parents so circumstanced can be properly trained, or whether their moral condition can be really improved. How

great an amount of work remains to be done in diffusing knowledge, may be judged of, from the fact that from 1839 to 1846, seven years, there was no improvement, the number of persons who signed with marks, remained the same during the whole of that period. Out of the whole number of marriages there are from 20,000 to 30,000 annually of persons under age, the women being as three to one of men. Among this large number, it is to be feared that much inexperience will be found; and perhaps not a few of the parties concerned might with propriety consider the words of the song, 'wait a little longer!' We do not advise people to wait until all the liveliness and enterprise of youth have departed, until all its aspirations and anticipations are darkened and disappointed; but we would counsel them to wait until they have made such provision as shall in some measure secure them from the gripe and blight of poverty.

GARDENING AND RURAL AFFAIRS.

How to Lay Out a Cottage Garden.—In the present paper, we propose to furnish our readers with a few plain and practical instructions on the formation of a cottage-garden. Among chief considerations are the fences or inclosures: it is a deplorable fact that nine-tenths of our country gardens are disfigured by wide wasteful ditches, topped by a vermin-breeding, weed-spreading hedge, the space thus occupied to the positive loss of the owner, being not unfrequently equal in extent to the whole of the cultivated part; this kind of fence must be altered before either neatness in appearance, economy of space, or good crops can be obtained. If the ditch is a water-course, let the hedge be reduced to half its height, and the bushes thus obtained will generally be sufficient to form a drain. Clear out the bottom of the ditch, so as to give the water a good fall, then press the trimmings of the hedge into it, filling up firmly about a foot of its depth; cover the bushes with sods of turf, and cut down as much of the bank as will bring it to a level with the rest of the garden; such a drain will last for many years. Perhaps the best thing for hedges of this kind, where only four-footed trespassers are to be feared, is the evergreen privet; it is certainly one of the quickest growing plants that can be used, and as it will bear any amount of pruning, may always be kept close and neat; it is also to be obtained with less trouble than most others, and if the purchase of sufficient to form a new hedge is not to be thought of, the nearest professional gardener, if a man possessing the usual kindly feeling of his class, will generally be able to supply cuttings enough to form a stock of young plants that in two or three years will go far towards the desired end. The inclosure we should prefer is a hedge of this plant, three feet high, and fifteen inches thick. We use this word because a privet hedge, properly managed while young, may be made almost solid; it should stand on a slight elevation not exceeding a foot, and constant care must be given to keep it clear of weeds, which will have the double effect of preventing their increase, and that of insects also. Privet hedges may be clipped as often as the owner may think proper; but once established, three times a-year will keep them in good order; they have an advantage over the 'quickset' in their more rapid growth, and in being evergreen, thus affording a more efficient screen from cold winds to the garden; and they grow equally well in all kinds of soil, without needing a ditch. Of the other plants occasionally used for the same purpose, it may be well to speak, though serious objections attach to them all. Laurel forms a handsome evergreen fence, so does the holly and yew; but when it is known that a very few of the leaves of the first may prove the death of a respected neighbour's cow that unfortunately chances to browse upon them, it will seldom be adopted by the right-minded, at least in exposed situations; and of the others, we can only say they are so slow in growth, and so expensive, as to be classed in the latter respect with a wall. We come now to the arrangement of the garden; and to have it perfect, we must provide space for vegetables, for fruits and for flowers; the proportions may vary for either, according to the taste of the owner; but where profit and pleasure are equally sought, perhaps the fairest distribution will be to limit the flowers to one-third of the garden, choosing the part nearest the dwelling, and devote the remainder to fruits and vegetables. These are commonly and properly associated, but the flowers should always be collected together, and kept quite distinct from the other portion, both for the sake of effect and better management. Poets, it is true, sometimes amuse us with rural scenes, in which gilliflowers mingle with cauliflowers, or the bean-blossom and rose are brought into such close contact as to emit a compound fragrance at once delightful and new; such an arrangement, or rather want of one, however, evinces either bad taste or care-

lessness, besides causing much more trouble in cropping and working the ground; indeed, the propriety of keeping them separate seems so evident, that we would recommend a division, such as a hedge of roses or fuschias, to be placed between. In the kitchen garden, or that part intended to produce vegetables and fruits, it will be necessary, before any more be done, to thoroughly trench the whole, collecting, as the work proceeds, the large stones and such other matters as may be useful for making the paths. The surface soil and that from the bottom of the trench should be well mixed, and where necessary, drains laid in at not less than three feet from the surface, or thirty feet apart. No time should be lost in completing this work, and being neatly finished, the laying out may be proceeded with. The first requisite is a warm border for the early and choice crops; this must have a southern aspect, and if at the foot of a wall, fence, or hedge, (if the latter is a clean one) so much the better. Six, eight, or ten feet may be the width of this border, according to the size of the garden, and what it is to bear; the earth from the surface of the path in front should be thrown to the back of the border, so as to give it a slope towards the sun, and no trees or bushes must be allowed on or near it; here the early radishes, cauliflowers, dwarf-beans, lettuce, and such things, will be produced. A border of the same, or any other size, may be continued round the entire of the garden, and the inner space should then be marked out to form equal and convenient parts. The paths should be not less than three feet in width, or their edges will be continually liable to be trodden down, and though this may seem extravagant in a small garden, yet it must be remembered that a good path economises time and labour in carrying on the after-operations; their extent should of course be proportionate with that of the garden, but whatever it is, let them be well made, for one good one will be found more useful than several narrow and poor ones, which after a shower of rain will not bear the weight of a barrow, or scarcely that of a footstep. The edges of these paths should all be bordered with strawberries, herbs, or other dwarf plants; and about three feet towards the centre, the currants, gooseberries, or espalier fruit trees, should be planted in lines, to correspond with those of the path. The first two kinds should be placed about six feet apart, and the last about ten; the space between them and the edging will afford a nice border for transplanting celery, early cabbage plants, sowing winter onions and spinach, and a variety of things which require a little extra care at particular seasons, as they may be got at readily, are constantly under notice, and, as it were, detached from all other things The larger or main crops will occupy the middle of the garden, and there also must the standard fruit-trees be grown. On the selection and management of these we shall shortly have more to say, therefore, for the present, it will be sufficient to mention the distance at which they are to stand both from the south border before-named and from one another; it should not be less than fifteen or twenty feet; if more room can be afforded, it will be better, for one tree with space to develope itself will always prove more profitable than several crowded together. The presence of a wall or warm fence should be taken advantage of, to introduce some of the finer kinds of pears or plums, taking care to place the earlier sorts in the warmest aspect; these fruits are to be recommended far before the grape vine, because the return is more certain, and fine specimens of either will always command a good price, while the value of out-of-doors grapes, even in the event of their ripening, is comparatively trifling. If a shaded or damp spot occurs in either corner, it cannot be better occupied than with black currant bushes or raspberries, as both these plants delight in such situations. For the flower garden, no positive rules can be offered respecting its arrangement; the owner's taste, directed by its size, situation, and other circumstances of like nature, must mainly determine the style, only it must be remembered to keep each part proportionate with the whole, and above all things avoid attempting too much, for unless this spot in particular is kept in the very best order, instead of reflecting credit and yielding a pleasure, it will prove the reverse. A porch, with a seat in it, covered with roses, honeysuckles, or other climbers, is an appropriate ornament to every cottage, and will afford a pleasant retreat in summer; or the same plants may be trained on the house-front, and a neatly-made rustic basket to fit the window-sill, furnished with plants in pots, will impart an air of neatness and finish not otherwise obtainable.

There are several matters which, though they rank only as conveniences, and are often overlooked, yet contribute materially to the success, and assist the working of a garden, and are therefore to be provided. The most important is a proper place to receive and prepare manure: for the sake of avoiding unpleasantness, it will be as well to remove this as far from the dwelling as may be possible, though it is by no means necessary that the compost heap should be the stinking unsightly mass so often seen; a more economical method o managing these matters will entirely prevent any nuisance arising. Lower the ground where the heap is to be formed, a foot or eighteen inches below the surrounding level, and in the lowest corner of this hole sink a tub to receive the drainage, and to this place

bring all the refuse of both house and garden; manure, decaying vegetables, slops, grease, wood ashes, &c., should here be deposited in egular layers; and whenever the accumulations have risen a foot above the last deposit, sprinkle the surface with plenty of quicklime, or a smaller quantity of salt, and cover the whole with three or four inches of some kind of earth, as different as may be from the character of that in the garden: thus, if the soil of the place is naturally light and porous, procure ditch scrapings, marl, or even clay, and on the other hand, leaf mould, road sand, or ashes, will be the best things to provide for heavy land. The tub before-mentioned receives all the liquid that may drain from the heap, and this will be found invaluable for watering cauliflowers or other strong-growing crops, or if not wanted in this way, should be poured over the heap, so as to soak it frequently, and thus assist the decomposition going on. If all refuse is collected through the summer, and an occasional barrowful of dung added, the heap will have arrived at a considerable size by the autumn, when it should be turned, and being two or three times chopped and mixed together, there will be an excellent dressing provided to turn into the ground at the winter digging. Another convenience almost as necessary, is a shed, or some covered place, to store away tools, sticks, roots, and such like things.

Where only pump or well water is to be had for refreshing the crops in summer, a good sized tub should be fixed in a sunny place to receive the water some hours before it is used, in order to have it slightly warmed, as the chill imparted to vegetation by pouring on cold water from a deep well is very injurious. If bees are kept in the garden, it will be necessary to float a piece of wood in the tub, or some of them may probably be drowned in their endeavours to drink. Another apparently trifling matter, but which will be found to add much to the comfort of a garden, is a supply of scrapers; not merely one placed by the house door, but several distributed over the garden; a couple of stout stumps driven into the ground, and connected at top with a piece of iron hoop, form an excellent substitute for a more expensive affair. Bridges and boards to carry the barrow over soft ground, should not be forgotten in the list of implements, nor any thing besides that will assist in maintaining neatness and order; for without attention to particulars of this nature, the garden will soon wear a slovenly appearance.

DIRECTIONS TO BEE-KEEPERS FOR MARCH.—As soon as the weather is fine, the hives which stood in the open air during the winter should be examined. Lift them carefully from the stand. Clear away all the dead bees and refuse matters which have collected during the winter. Rub the mouldiness and damp from the floor-board, and let it be well dried. The bottoms of the combs often become mouldy in the winter, especially in light stocks, and it will be a good thing to cut off the lower portions, which may be done with a table-knife, and without danger, by simply turning the hive on one side, in the evening or early in the morning; or at any time, if you take the precaution of smoking a pipe during the operation. The bees will soon restore the combs, and their health be improved by the removal of the decayed portion.

Let straw hackles be removed, in which mice often lodge themselves, working their way into the hives, and destroying them. Do not leave the hives without protection; cover them with something that will keep off the rain. Do not yet enlarge the entrance, unless for a part of the day, when the weather is *very* fine, when it may be opened wide enough for two or three bees to pass together.

Begin to feed the *light stocks;* do not be sparing; a liberal supply will be amply repaid by the health and vigour of your bees *now*, and by the abundant store they will lay up hereafter. Read the remarks on this point at page 104 of vol. i., where directions for feeding have been given. Guard against the admission of stranger bees, while yours are feeding. Give *honey* now, if you can, rather than syrup, as it forms a better ingredient than sugar, in the jelly which supports the young brood.

The consumption of food in a hive is now perhaps greater than at any period of the year. The queen lays from 100 to 200 eggs daily, and the increase of the brood is so rapid and prodigious, that it is impossible for any except a well-stored hive to stand the trial. Many persons wonder that their bees die in the spring, when they have survived the winter; but we have before shown that the food consumed during the cold weather is comparatively very small to what it is during breeding time. On this ground, we desire to urge bee-keepers to feed abundantly *all their stocks*, but especially the light ones. "You do not waste your honey by feeding, but only, as it were, pour it out of one pot into another, where you may find it whenever you want it, and not only so, but you find a peck where you put a quart."

If you have room in your garden, sow borage and mignonette; the former is eagerly resorted to by the bees; it is an annual, and blossoms all through the season till cut off by the frost. Mignonette is also a great favourite with the bees, and yields honey of a fine flavour. Both these continue to blossom during the autumn, when other flowers have disappeared.

RIGHT AND WRONG; OR, HOW TO SUCCEED AND HOW TO FAIL.

Some thirty or forty years ago, when one of our middle-sized manufacturing towns was principally distinguished by its weekly market and its cow-fairs, and when there were yet but a few weaving villages growing around it—when there was but one church in the place, and one methodist, and one independent meeting house—when the farmers in the neighbourhood knew the tradesmen in the town, and the tradesmen in the town walked out on holidays to see their friends among the farmers—when a stranger was sure to be known all over the place, as the traveller who was staying at the 'Blue Boar,' the 'King's Arms,' or the 'Talbot'—some thirty or forty years ago, when Netherbrig was a small country town, and possessed such characteristics as have been indicated, two men commenced business in it—one at each extremity of the town.

Samuel Taylor, in 1810, opened a 'general' or huckster's shop, in the north end of Netherbrig; and John Brown, in the same year, began business at the south end. They were not rivals; for, while the one remained in his position, and the other occupied his place at the other extremity, there was no danger—the business of each being of course of a local and limited character—of Samuel interfering with John, or John with Samuel. But the two men had different characters, and the mental and moral differences of the two soon began to tell upon their respective worldly concerns.

Taylor was a quiet, demure man, who at first sight might not engage all your sympathies; but when you began to know him better, you discovered that his demureness did not arise from any gloom of the heart, but simply from thoughtfulness; that his feelings were all good, and that he was a person in whom you could place confidence.

Brown was hearty in his manner; he was rollicking and jestful; he had a fat person, and a good-humoured face. But when you had had some acquaintance with him, you found out that his principles were shallow, and his disposition selfish and heartless.

One would almost have taken Taylor for a Quaker, though he was not one; his manner so subdued, his language so precise, his dress plain and unpretending; it was properly homelier than richer people's, at the same time that it was cleaner and in better trim than that of many of the wealthier drapers and grocers round about him; while Brown's attire, though finer than Taylor's, was neither so clean or well put on; he looked, in fact, a flashy, boastful character.

A weaver, smoking his pipe after a week's toil at the loom, would leisurely drive his donkey, loaded with the industry of himself and family, into the north end of Netherbrig. He would stop his animal with no very gentle pat over its long ears, and a 'wo-o!' and enter Taylor's shop. "How dost thou do, Sammle?" was the weaver's salutation; for a plainness of manners yet remained in Netherbrig, and is to be found there to a great extent still—a simplicity which those who have the sense to understand, can best appreciate. Ingenuous simplicity is neither bluntness nor rudeness. "Thank'e, Solomon, how art thou thysen, an' t' wife, and barns?" was Samuel's reply. The weaver then proceeded to indite a list of articles for his home-consumption, which he should require on his return journey, and Samuel to write it down in his 'book,' which answered the purposes of diary, personal-expense-book, house-expense-book, memorandum-book, waste-book, day-book, and ledger. Never mind, he had all these, by-and-by. "Naw, doant ye forget the baccy, Sammle, it is a bad habit, I daresay, but it's a habit I ha'e gotten, an' a reek or tue at hoam wi' a boddy's wife is better nor t' public-house at ony rate." The weaver wended his way into Netherbrig and delivered his goods. Other weavers from the villages to the north of Netherbrig succeeded him, and held similar colloquies with 'Sammle.' Every one of them on returning found his parcel

ready and correct. Every one of them found just what he had ordered—found a good article at a reasonable price, and of just weight or measure. They insensibly acquired a respect for 'Sammle,' and a confidence in him; and, when treating with him for provisions, used to ask his counsel and advice on family and business matters. The wife of this one would send to ask Mr. Taylor about the measles and whooping-cough, as he was a decent and sensible man, and another, on his own account, not on his wife's, would go from 'Sammle's' door reassured as to the propriety, honesty, and necessity of paying the national debt.

There were weavers too, who with their donkeys came into John Brown's end of the town. They called at the different hucksters' shops too on their way for their family provisions, finding out, like their fellows at the other end of the town, who were to be depended on, and who were not to be depended on. Men, women, and children soon find out whom they may trust. The grand secret of success is to deserve it, after all. A weaver would call at John Brown's, and John would appear with his pipe in his mouth from his dirty little back parlour, where stood his mug of ale. John had no 'book' like Samuel Taylor's. John trusted his orders to his memory, and his credit accounts were to be seen in chalk on every blank space on the walls, and on the back of the door. I acknowledge that many an honest and praiseworthy man, from want of book-learning, has been obliged to keep accounts in this way; but great things are not to be done with it. John would take his order, confide it to his memory, remark to his customer "all right, old fellow, it will be all right when you come by again," and retire to the shades and his pipe in the back settlements. When the weaver did return, John would still have to commence the making-up of his parcel, and the sugar would look rather brown, one or two of the candles would be broken, some chaff and straws would have got into the flour, and flies into the treacle. Some one or two things John would be 'out of,' and the weaver, having already wasted a quarter of an hour through John's want of punctuality, would have to go back some little distance to supply deficiencies. When the weaver got home his wife and he would have some reason to suspect that the weights were not so accurate as they should be, which was 'cruel sore' on a poor man, after working hard all the week for himself and family. Again, the weaver would remark that "t'grocer seemed a thowtless sort of a chap, al'a's laking wi' that ugly bull-dog o' his;" and he and his wife would at once agree to pass that shop by in future. 'Sammle' would have secured both their custom and their esteem.

If you had seen Netherbrig forty years ago, and were to pay it a visit now, you would hardly know the place. Large blocks of building, like huge men-of-war turned upside down, the rows of small square windows representing the port-holes, vomit clouds of black smoke through their tall chimneys, which point to the sky along the valley of the brook, formerly crossed by two bridges, the upper and the nether, the latter being that from which the town seemed to derive its name. A place of five thousand inhabitants has grown to be a place of fifty thousand. The old-fashioned manufacturers of yore have seats in the neighbourhood now, and are very proud of associating with the 'real old gentry;' the retailers have become merchants and manufacturers; the hucksters, drapers and grocers; there has been a general press upwards from the ranks. Withal, even in this thriving place, there are those whose course has been only downwards. Such will ever be the case, and such men will ever find their excuse in external circumstances rather than their fault in themselves. The natives can point you out many a one whose grandfather was a working-man, now a man of wealth and influence; many a rich man whose father worked for wages; many a thriving merchant or manufacturer who worked, once on a time, for daily wages himself. One has made a fortune through improvements in machinery, another through the pattern of a piece of goods; one through the discovery of a cheap process of dyeing a much admired colour; and another through a new mode of dressing the surface of 'pieces.' Some have risen gradually through the exercise of general attention to business, and probity and punctuality in its transaction.

One of the foremost of such men is our old friend Samuel Taylor, whose beginning, nearly forty years ago, we have already chronicled. 'Sammle' is now mayor of the town—for it has lately been endowed with a corporation—the first mayor. To signalize the birth of the place in its corporate capacity, there were great rejoicings, and Mr. Taylor gave a dinner which cost a thousand pounds. This was a needless waste of money perhaps, but it did good to those no doubt among whom it was spent, and Mr. Taylor hardly noticed the absence of a thousand from his banker's book. He is not a vain man, and did not spend it for display. He is still plain Samuel Taylor, and I believe his being the first mayor of the place has given an almost universal satisfaction to the inhabitants. People wanted him to 'stand for the borough,' but he judiciously and modestly remarked that he had still enough to do with his own concerns and the local business of the town, and that it was hardly fit for a man above three-score to enter on the novel and exciting field of national politics.

Let us now pay a visit to John Brown, and see how he has thriven. John still resides in the same quarter of the town, but instead of that being on the outskirts it is now almost a central portion of the place. John does not now keep the 'chandler's shop,' he keeps what the natives call simply 'a public;' what they call too 'a beer shop,' and sometimes more figuratively 'a tom and jerry,' in allusion to the sporting character of the establishment. John sells bad beer and bad 'baccy.' Things, by the by, which people would be as well without altogether, especially if they are to be used in such society as is to be found at the 'Cock and Bottle,' the name of John's house. John has a red, pudding-like nose, a blotched face, and is remarkable for inattention to cleanliness, both in his clothes and person, except when he may chance to proceed to 'the Doncaster,' or to any man, or bull, or cock-fight, when he appears, in his own language, 'som'at spicy;' that is, with breeches and top-boots (the fashion of his youth), a staring waistcoat, and an old blue coat. John is always in difficulties, and does not bear one of the purest characters in the town. He has been mixed up with one or two ugly affairs, though he has had the skill to keep out of what he calls 'trouble,' that is, legal punishment for an offence or a crime. However, he is a great man in his own dirty parlour. He bullies a good deal, and swears, and astonishes idle and dissolute young lads with his sporting experiences.

He has wise sayings of his own, and seated at the head of his company, with his long pipe in his mouth, and his mug of beer before him as of yore, he utters what he considers good things. There is a remark often in his mouth—'a man can't now-a-days be honest and get on in the world—if ye want to succeed, lads, ye must have a spice of the rogue in ye!'

Does the reader agree with him?

INFLUENCE OF LIGHT ON HEALTH.

Cheerfulness is a great blessing and is the parent of many others. It gives a relish to simple fare, adds a charm to plain features, and keeps down petty troubles. Cheerfulness, in fact, is another name for health; it is difficult for people, when out of health, to be cheerful. There are causes of cheerfulness, as well as causes of gloom and despondency; on dull, foggy, or rainy days we feel less animation than in fine sunshiny weather; and light, if not the chief, is one of the principal causes of cheerfulness. Unless there be light in the dwelling we can hardly hope for light in the heart.

The ill effects consequent on a deficiency of light, though often brought under notice, have not yet been considered with due attention. And it is a lamentable fact that, even in situations where a full supply of light may be obtained, people are often unwilling to take the necessary pains for its admittance. There may seem to be a good reason why houses in the narrow streets and alleys of towns should be gloomy, but there can be no good reason why cottages and

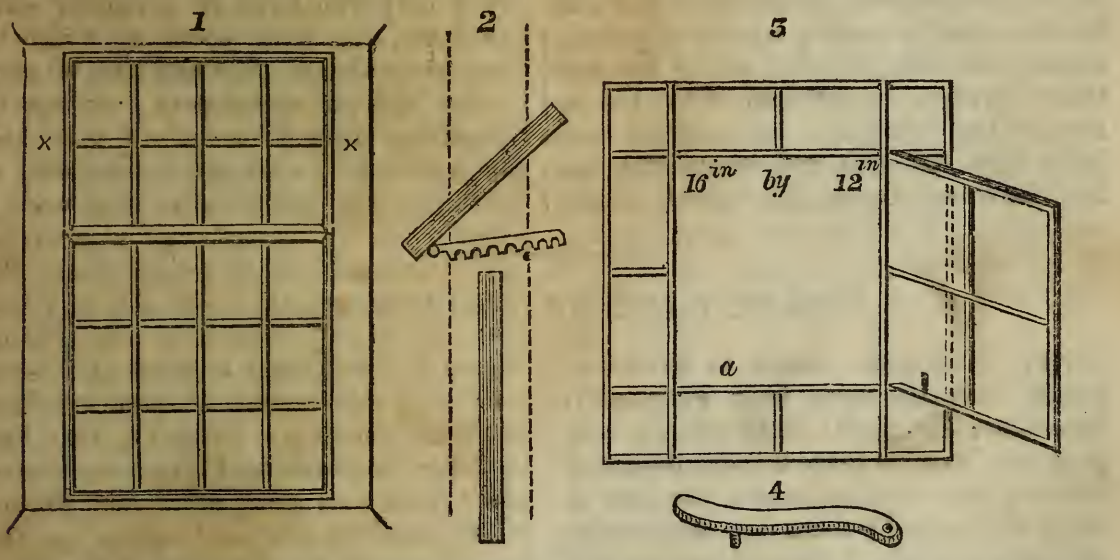
houses in country places should be dismal also. Yet we often see dwellings by the side of broad commons, or on the slopes of breezy hills, with windows so small as not to admit a tenth of the light required. Now, although the law imposes a tax on windows in dwelling-houses when more than seven in number, it does not interfere with those which have fewer than seven, and as this sort of house is the one most occupied by the labouring population in town and country, we see no real cause why the windows should not be large enough to admit plenty of light.

Darkness and gloom have a depressing effect on the health and spirits. The light of the sun is as necessary for the health and growth of human beings as for plants. Who is there that has not noticed the vocal liveliness of birds under bright sunshine; animals frisk about in the warm rays, and insects, which are seldom or never seen in cloudy weather, come forth by thousands. Infants too, enjoy light, they turn their eyes eagerly towards it, and when restless or cross, are often quieted by the beams of the sun or moon. Plants grown in the dark or by lamp-light, instead of being green are of an unhealthy white hue, and the pores which open from every part of the stalk and leaves in the natural state, are but very few in number or altogether wanting. Hence the plant is unable to perform its most important function, that of transpiration—or breathing, an act entirely due to the influence of light, for the pores of healthy growing plants open in the sunshine and close in the dark. During the day they take in carbonic acid gas from the atmosphere, and give out oxygen; but in the night they take in oxygen and give out carbonic acid. The taste of plants too is affected by light; some which are sour in the morning, become tasteless at noon, and bitter at night. The peaches grown under the sun of America, are as much superior to those of England, as the latter are to sloes. Gardeners and farmers find that plants when crowded together struggle towards the light. Chlorine and hydrogen-gases it mixed together and kept in the dark, will never unite; the light of day causes them to mingle slowly, but in direct sunshine they combine instantaneously, and explode with a loud report. Colours fade in a strong light; and as most readers know, portraits are taken by the action of light. Some trades cannot be carried on without a good light: dyers find that brighter colours are obtained under a clear, than under a cloudy sky. People who work in dark rooms, or in mines, are sallow and sickly in complexion, and sometimes deformed. One great cause of despondency and illness among emigrants while on board ship, is want of sufficient light between decks. Some animals are tamed by being deprived of light; and it is a well-ascertained fact that tadpoles, which are young frogs, will never grow into frogs if always kept in the dark.

Bearing these interesting effects in mind, we shall better comprehend the reason why dwelling-houses ought to be built so as to admit plenty of light. Unfortunately, the reverse of this is what mostly prevails, and the cottages and tenements inhabited by the working-classes in this country, are neither so salubrious or comfortable as they ought to be. In the First Report of the Health of Towns' Commission, a case is recorded of a lady who lived in a narrow street in Paris, in a small room, on which the sun never shone. She had been ill many years without amendment; at last the physician ordered her removal to a cheerful apartment, when she immediately recovered: her illness arose from want of light. At St. Petersburgh also, it had been observed during several years, that the soldiers lodged on one side of a large barrack, which was dark and gloomy, were ill three times as often as those on the other side which had sufficient light. Medical men agree in stating that light greatly improves and promotes health. Mr. Ward, a surgeon, in London, affirmed in evidence before the Commission, that children reared in dark and dimly-lighted places were stunted in growth, and would be less able to work than others more favourably reared: the mind too is stunted and injured as well as the body. 'The more dark corners,' he observes, 'you have in the dwellings of the poor, the greater amount of dirt and filth;' and he advises 'young people who are about to marry, and can afford only one or two rooms, to choose the largest room they can find, and in which they can obtain

the greatest quantity of solar light ; the amount of disease in light rooms, as compared with that in dark rooms, being infinitely less.' If direct light cannot be had, then borrowed light will be better than none at all. A large proportion of disease prevailing at one time among the humbler classes in Liverpool, was caused by their living in dark and dismal cellars, with scarcely any light but what came in at the door. The same evil is complained of in all large towns, and wherever improved dwellings have been built, a beneficial result has followed for the occupants.

It very often happens that a person who lives in an ill-lighted house is obliged to work all day in a gloomy workshop ; this doubles the evil, and it becomes a duty with those who employ workmen to provide such shops as may not affect the health of their people. Improved villages have been built in some parts of the country, and in others, measures have been taken to improve windows, particularly in small houses. In Mr. Chadwick's valuable Report on the Sanitary condition of the Labouring Population, we read that the Highland Society offered a prize for the best cottage window—'Various specimens were sent in. Some were made of zinc ; but these were rejected on the advice of tradesmen, as being too weak to admit of repair by an unpractised hand. Wood and lead are, for the same reason, equally unsuitable. One was constructed with astragals (bars) of malleable iron, so thin as very little to impede the light, and consequently admitting of glass of a very small size. Cast-iron, however, appears to be the material least liable to objection. Frames of this kind are made by Messrs. Moses M'Culloch and Co., Gallowgate, Glasgow ; and, without the wooden frame, the cost of each is 5s. Glass for such a window may be purchased at $2\frac{3}{4}$d. per square. These windows would appear adapted for farmhouses and workshops, as well as for cottages. They admit of being made of every variety of size, and, in most cases, they may be fitted with ease to houses already built. In many situations, it will thus deserve consideration whether



No. 1 is a drawing of the Highland Society's window. The size of the sash is 39 inches by 24 inches. It is made in two parts ; the lower one, which includes three panes in height, is fixed ; the upper one is made to turn on a pivot at × ×

No. 2 is a side view of the same window when open. The upper portion slopes outwards, whereby ordinary rain is thrown off, and may be fixed at any required angle, according to the weather, by means of the rack, the notches in which catch on the head of a stud, as shown by the black dot. The rack is attached to the right side of the sash, and when this is closed it hangs down inside without being in the way.

No. 3 is called the Belper window. It was invented by Mr. A. Strutt, of Derby; weighs 60 lbs. without the glass, and costs 12s. The size is 34 inches by 25 inches ; that of the centre portion is given above ; it is made so as to open easily without rubbing, and the weather is kept out by the rabbet on the edge of the frame, and a drip-shelf above. It may be kept open to any distance by the guide bar (No 4.) the hole in the end of this, fits over the pin seen on the lower bar of the sash, and the pin seen on the under side of the bar drops into holes in a plate fixed inside the window at *a*. When the window is shut the guide bar rests against the frame, and thus the inconvenient hook dangling outside is altogether avoided.

it may be better to repair the glass of old frames, or to adopt windows of this construction, which may be purchased and kept up at so very moderate an expense. It is understood that Messrs. M'Culloch intend to establish agencies in all parts of the country, and light and pure air will thus be supplied to the humbler classes everywhere, at a much cheaper rate than they have hitherto been obtained.'

Although these observations apply more particularly to Scotland, there is no reason why they should not be adopted all over the kingdom. Even where houses are not so well built as they ought to be, the inmates can do something towards improving them. How often is the remark heard from landlords, that it is useless to put small houses in repair, for the tenants take no pains to keep them so. Surely such a complaint as this ought not to be heard in what is called a Christian country. Although we think a great benefit to the community would result from a repeal of the window tax, yet we must repeat that the houses occupied by the working-classes generally escape the impost. But how often are the windows, already too small, nailed up to prevent their opening, or patched with paper, rags, or the crown of a hat; making the little light still less, and reconciling the inmates to untidiness. We would recommend all those who live in houses with broken windows, to pull away the rags and patches of paper, and have the panes mended, either by making some arrangement with the landlord, or by saving for a week or two the money that would be spent in beer or spirits, and they will at once feel the good effects of increased light. It is often said that if a man has on a decent hat and clean shoes, he looks respectable; so a middling sort of room will look respectable with clean windows. Some readers will remember that excellent narrative 'The Cottagers of Glenburnie,' and how delighted Mrs. MacClarty's serving-girl was after cleaning a long-neglected casement; she could scarcely believe that clean glass would look so bright, and let in so much light. And so it will be with every one who tries the same experiment: they will be gainers in every respect, for the more light that comes into the house the less encouragement is there for dirt; holes and corners will be routed out and purified, and what was once a dingy hovel may become a cheerful home. Surely where light is such a blessing, it will not be thought too much trouble to clean both sides of the windows once a week, especially when it is remembered, as we have before said, that light in the dwelling is a great promoter of light in the mind, of health in the body, and happiness in the heart.

TAKE CARE OF YOUR WATCH.

First: Wind your watch as nearly as possible at the same hour every day. *Secondly:* Be careful that your key is in good condition, as there is much danger of injuring the machine when the key is worn or cracked; there are more mainsprings and chains broken through a jerk in winding, than from any other cause, which injury will, sooner or later, be the result if the key be in bad order. *Thirdly:* As all metals contract by cold, and expand by heat, it must be manifest, that to keep the watch as nearly as possible at one temperature, is a necessary piece of attention. *Fourthly:* Keep the watch as constantly as possible in one position—that is, if it hangs by day, let it hang by night against something soft. *Fifthly:* The hands of a pocket-chronometer or duplex watch, should never be set backwards; in other watches, this is a matter of no consequence. *Sixthly:* The glass should never be opened in watches that set and regulate at the back. One or two other directions more, it is of vital importance that you bear in mind. On regulating a watch, should it be fast, move the regulator a trifle towards the slow, and if going slow, do the reverse; you cannot move the regulator too slightly or too gently at a time, and the only inconvenience that can arise is, that you may have to perform the duty more than once. On the contrary, if you move the regulator too much at a time you will be as far, if not farther than ever, from attaining your object; so that you may repeat the movement until quite tired and

disappointed—stoutly blaming both watch and watch-maker, while the fault is entirely your own. Again, you cannot be too careful in respect of the nature and condition of your watch-pocket; see that it be made of some material that is soft and pliant—such as wash-leather, which is the best and, also, that there be no flue or nap that may be torn off when taking the watch out of the pocket. Cleanliness, too, is as needful here as in the key before winding; for if there be dust or dirt in either instance, it will, you may rely upon it, work its way into the watch, as well as wear away the engine-turning of the case. —*Edward Grafton on Horology.*

COTTAGE COOKERY.

BY ESTHER COPLEY—SEVENTH ARTICLE.

ABOUT VEGETABLES.

It is an important branch of cottage economy, so to manage a garden as to keep the family constantly supplied with vegetables. By industry and good management in cropping, a small piece of land may be made to answer for this purpose. Those who have a small garden and are desirous of making the best of it, have, from time to time, been furnished with many interesting and useful hints in the *Family Economist*. One or two remarks may be added as to the gathering and storing of vegetables, for on these matters, their value and wholesomeness, as articles of food, greatly depend. All kinds of green vegetables should be used as fresh as possible, that is, as soon as may be after they are gathered. If kept in-doors they soon become flabby, stale, and unwholesome. Vegetables are to be gathered in the cool of the morning or evening, not when the sun is powerful. As soon as gathered, they are to be put in a cool shady place, such as on the bricks or stones of a cellar or dairy, until wanted for use. The outer leaves of cabbages, lettuce, and such like, should not be pulled off until the last minute, as they keep the hearts moist. Vegetables after gathering should never be put in water to keep them fresh, or rather to keep up an appearance of freshness. Though often practised, both in private kitchens, and in inferior shops, especially with radishes, lettuce, cucumbers, and small salad, it is always objectionable, and renders the thing unwholesome.

Roots which are stored for winter use should attain perfect maturity before they are removed from the ground; but not be suffered to remain long afterwards, lest, if the weather be damp, a second growing should ensue. Dry weather should be chosen for digging and housing roots. Various methods are adopted for preserving roots in the winter. Some people who have plenty of cellar room to spare, make a regular winter garden of sand, in which they bed carrots, parsnips, beet-roots, celery, endive, &c. Some keep their potatos in trenches of earth; others, merely stack them in a dry outhouse. Whatever plan be adopted, it is essential to preserve them from frost, from damp, and from dry heat. Onions should be roped and hung up. Herbs, (mint, balm, sage, thyme, &c.,) should be cut in dry weather, just before they begin to flower, and dried in the wind; that is, not in a sunny window, but suspended in a shady room, through which a current of air passes. When dry, they should be enclosed in paper bags, to preserve them from dust.

Persons who have to buy their vegetables will do well to be particular in getting them fresh, which may be known by their feeling crisp, and having the dew or bloom resting upon them, which after a few hours will pass away. Green peas, if fresh gathered, will snap on shelling, and the peas appear moist and glossy. If the shells are flabby, they may be considered as stale. The same remark applies to broad-beans, and kidney-beans. The buyers of vegetables should especially avoid such as have been kept in water.

To clean Vegetables for the Table: —Avoid making them dirty by shaking the roots among the heads, or by suffering them to be laid together in a basket. If fresh gathered, and perfectly free from insects and dirt, vegetables preserve there

colour in boiling much better when not previously wetted. If blighted, or in any respect dirty, remove all that can be removed before wetting ; that is, trim away the outside leaves and roots, leaving no more than is to be actually boiled and eaten. This applies to cabbage, brocoli, and cauliflowers. Summer cauliflowers, in particular, require great attention, as they abound with slugs and caterpillars. Having carefully trimmed them, let them lie an hour or more in a pan of spring water and salt. Observe to plunge them into the water, not to pump or pour water upon them, which would make them flabby. Immediately before putting them into the saucepan, take them out of the water and shake them well in a colander or thin straining cloth, that every drop of cold water may run off. In trimming vegetables do not be too saving ; one tough outside leaf will spoil a whole dish ; strip till you come to tender quick-grown leaves ; and in cabbages, shave the stem, and also the stalks of the outer leaves. Salad and radishes should be washed in water without salt. Celery requires half-an-hour or more to soak. A brush, somewhat resembling a plate brush, is very useful in cleaning the root end of celery.

Green-peas, French-beans, and broad-beans, require no washing. They should be cut or shelled just before boiling. It sometimes, however, happens to suit to shell peas an hour or two earlier ; if so, they should be covered with the shells, and placed on the stones or bricks in a shady room.

Asparagus, if quite fresh, need not be washed : tie them with bass or tape, in bundles of twenty-five or thirty each, making all the heads lie level, and cut the stalks to an equal length.

Turnip greens, if cleanly gathered, and carefully trimmed, need no washing. Only the hearts and stems are to be used. The latter should be skinned. But turnip-greens grown on sandy land, especially after heavy rains, require to be washed in several waters.

Spinach should be picked leaf by leaf, and washed in several waters, and afterwards thoroughly drained.

The stalks of white-beet for boiling, as well as those of rhubarb for pies or puddings, should be skinned.

Red beet-roots should be well washed and scrubbed, but not scraped with a knife, as that would discharge the rich juice and the bright colour. Potatos and Jerusalem artichokes should be scrubbed with a birch-broom or scrubbing-brush, and washed very clean, just before boiling. They should not be wetted at all till they are about to be used. Carrots and parsnips should be well scrubbed and washed. After boiling, rub off the skins with a coarse cloth. New potatos are done in the same manner. In Spring, when potatos become old and specky, it is better to peel them raw ; carefully removing the specks. This must be done with a knife. Afterwards rinse the potatos, and either steam them, or boil for mashing, or for browning under meat.

Onions, Leeks and Shalots.—Take off as many coats of the skin as are at all slimy or tough. For roasting—onions should not be skinned or washed, but merely wiped from dust. Young spring onions are served with the green tops ; merely the roots and one thin skin being removed. Artichokes should be soaked an hour or more before boiling.

To Dress Vegetables.—One general set of rules may serve for all green vegetables. 1. A tin saucepan that shuts close, large enough to allow plenty of water. 2. The water fast boiling the moment of putting in the vegetables, but not having boiled before, nor been allowed to stand on the hob. The quicker the water comes to boil at first, and again when the vegetables are put in, the sooner they become tender, and the better they preserve their colour. 3. A brisk fire that will cause the water to boil up again quickly. 4. A small quantity of common salt to be put in *with* the vegetables—*not before*. A table-spoonful of salt is sufficient for a large dressing of greens ; half that quantity for peas. 5. The instant the vegetables are put in, shut the lid close, and do not lift it up again until it is forced up by rapid boiling ; when this is the case, remove it, and do not return it again. 6. When the vegetables are nearly done, have quite ready a colander and slice or wire-ladle, with which to take them up ; do not pour the water through them, but carefully lift them out with the ladle into the colander. 7. Shake them carefully in the colander to drain, before putting

them into the vegetable dish. Spinach should be pressed between two trenchers.

N.B.—The boiling of green vegetables may be expedited, the colour preserved, and if they are old and tough, they may be made tender, by putting in with them a *small quantity* of soda: half a teaspoonful of carbonate of soda, or a bit of washing-soda, the size of a small hazel-nut, is enough for a moderate dressing. This is not suitable for potatos or roots in general, it spoils their colour, though it improves that of greens.

As to the Time Required for Boiling.—The great art is to let vegetables boil till they are perfectly tender, but to take them up before they become at all watery. In this state vegetables are most wholesome and digestible, as well as most agreeable. Young cabbage plants and sprouts, whether of kale, Brussels sprouts, or cabbage, will take from fifteen to twenty minutes' boiling. Large, full grown cabbages and savoys, three-quarters-of-an-hour or more: when a fork will easily run up the main-stalk they are done. Brocoli and cauliflower.—If several heads are boiled together, they should be chosen nearly of a size; according to their size they will take from a quarter to three-quarters-of-an-hour; about twenty minutes for a moderate sized head—the tenderness of the stem is a test for the whole; take them up carefully to avoid bruising the heads. Peas do not require so large a quantity of liquor to boil in as greens, but it is important that it should boil fast at first, and boil up again quickly. A few tops of young mint are generally boiled with peas, and a small lump of sugar may be put in with the salt. From fifteen to twenty minutes will boil them; if kept fast boiling the whole time, when done enough they will all sink. The same rule applies to broad-beans, which require from twenty to thirty minutes' boiling; a bunch of parsley is generally boiled with them. Asparagus require from twelve to twenty minutes; they must be carefully taken up the moment they are tender, or the colour and flavour will be injured, and the heads broken; they are generally served on buttered toast. Artichokes require long boiling, according to their size, seldom less than an hour, often more; they may be tried by pulling a leaf, if it comes out easily, the artichokes are done. Spinach requires seven or eight minutes' boiling; strain it on the back of a sieve, and press dry between two plates or trenchers; it is often served with poached eggs and buttered toast, or slices of fried bread. Turnip-greens take five or six minutes' boiling. Turnips—to be peeled and cut up when raw; put them into fast boiling water with a little salt. Small garden turnips require from twenty to thirty minutes' boiling; large field turnips from half-an-hour to an hour, rather longer if for mashing; press out all the water, return them to the saucepan, stir in a bit of butter, and a little pepper and salt; if boiled in broth or with meat, rather less time for boiling will be sufficient. Carrots—young carrots—the size of large radishes—will boil in twenty minutes; as they advance in size, a longer time is required; and old store carrots take from one to two hours' boiling. French beans—Choose them young, quick-grown, and nearly of a size; slit them down the middle, and cut in half; if at all old, draw off the strings from the edges. For young beans, fast boiling, from ten minutes to a quarter-of-an-hour. Parsley, fast boiling three or four minutes. Vegetable-marrow, from twenty minutes and upwards, according to its size; it is easily tested, as soon as it sticks tender, it is done. Onions—large onions take a full hour to boil; Portugal onions, two hours; put them into boiling-liquor, with a little salt; if it be desired to have them very mild, when they are half done, drain off the liquor, and put as much fresh boiling; the liquor may be changed twice or more; when done, drain them dry, and beat up with a little butter, pepper, salt and milk. Onions may be roasted either in front of the fire, in a side-oven, in the embers of a wood-fire, or in or under a copper-hole or oven. Fried onions should be cut in slices, the thickness of a penny piece; put them in the frying pan, with a little water and salt; let them boil three or four minutes, drain off the water, add an ounce of butter or dripping, and a dust of flour, and fry till brown on both sides.

Potatos.—For boiling, choose such as are of equal size. Set them on with cold water, and a spoonful of salt, in an iron saucepan that will allow an inch or two above the potatos. The water at first

need not quite cover them—keep the lid off—on coming to boil, check with a little cold water two or three times. When a fork will easily go into them, drain off the water, and stand the saucepan on the hob; by this plan they will become dry and mealy. Peel the moment before serving. For the sake of keeping them hot, some people prefer having them sent to table in their skins.

To steam—they may be done in their skins, or peeled raw; and if intended for mashing, the latter is preferable. The steamer should be set over when the water boils in the saucepan beneath; about three-quarters of an hour will be sufficient. They should be taken up as soon as done, or they become watery.

Potatos may be roasted in a side-oven, or an American oven, or cheese-toaster, or under the embers of a wood fire—or in a vessel contrived on purpose. It is of wrought iron, its form resembles that of a candle-box. The potatos are shut in, and the whole suspended over the fire. Experience will best decide the proper distance at which to place them. Two hours will do them thoroughly; if previously scalded a less time will suffice. Mashed potatos—when thoroughly boiled or steamed, drain dry, peel, pick out every speck, and while hot rub through a colander, or press with a spoon.—This should be done in a clean saucepan—add a little pepper and salt, from ½oz. to 1oz. of butter, and a table-spoonful of milk; stand on the hob till the moment of serving;—or they may be set in front of the fire, or in a side-oven, and browned. For browning under roast meat, potatos should be half boiled, then peeled, and put in the dripping hot. From an hour to an hour and a-half will do them nicely; they may be done in the same manner under a baked joint. The par-boiling, and putting them under the meat hot, are essential, as preventing both needless waste of dripping, and checking the meat by their steam, as well as securing their being thoroughly done.

Fried Potatos—These also should be previously parboiled, if not left as cold potatos from a previous meal; they may be cut in slices, ¼ inch thick, and fried in a little clear dripping—both sides of a fine brown. Some people like to shave them up in thin bits, and with a little pepper and salt, shake them about in the pan till hot through—but the former method does them more uniformly brown and crisp.

Jerusalem Artichokes—Skin them raw. Put in boiling water, and boil ten minutes. They must be drained the moment they are tender, or they soon become watery.

Red Beet-roots require longer boiling than potatos—according to the size of the roots, from three-quarters of an hour and upwards. They are excellent baked and eaten with cold butter or dripping and salt. Large roots require two hours to bake.

A GOOD CUP OF TEA.

To secure the satisfactory and economical preparation of this favourite beverage, attention must be paid to several particulars which are frequently overlooked.

Water.—It is essential that the water employed in tea-making be good, fresh and soft. Hard-water sets the herb, and fails to draw out the flavour. Pond-water, or water that is stale, imparts an unpleasant and unwholesome taste of its own; either may be improved by filtering. A small portion of carbonate of soda is often employed to soften water for the making of tea, and is by some persons reckoned a matter of economy. It certainly does both draw out the goodness, and by heightening the colour of the liquor, gives the *appearance* of strength, but it destroys the fine flavour of the tea, and to those who know better is very disagreeable; however, where people are badly off for water, it may sometimes be useful. But let it be remembered that even a slight excess is intolerable; four or five grains is sufficient for a large pot of tea; it should be put dry in the tea-pot with the fresh tea. The above quantity would lie on the handle tip of a common-sized saltspoon.

Kettle.—A good kettle that shuts closely, and is free from fur. An oyster shell in a tea-kettle gathers the earthy particles to itself, and prevents furring. A kettle should never be suffered to stand by with

a small quantity of water in it. As soon as done with, it should be drained dry, and well rinsed before filling. When filled, set it on the fire immediately, and let it boil quickly.

Tea-pot.—A round tea-pot is found to draw better than an oval one. For material the preference is due in the following order:—Silver, foreign china, Britannia metal, black Wedgewood, English china. For management of the tea-pot—*Never* let it be dipped in the vessel in which tea-things are washed, but having removed the drained leaves, fill the tea-pot with boiling-water, and empty it in the vessel for washing up the rest; drain and wipe the inside with a *perfectly clean dry cloth*, and keep the lid off or open. If a tea-pot lid is closed but a few hours, a dampness gathers which soon becomes musty. Immediately before making tea, half fill the pot with boiling water, drain it perfectly dry, and let the tea be made while the tea-pot is still quite hot; the tea-pot should hold, at least, two more cups than the number of persons who are to be supplied from it; one to allow for the bulk of the tea, and one to remain on the leaves between each filling. If the tea is drained, the next filling will be good for nothing. A larger tea-pot than absolutely necessary, is no disadvantage; only there must be calculation as to the quantity of water. Thus, if the tea-pot holds eight cups, and three persons require from it three cups each, in the first making let it be moderately full; after pouring out one round, add only as much water as two cups; this will supply the quantity required without waste.

Tea.—A *sufficient* quantity of *good* tea is essential: inferior tea is but water spoiled. Black tea is reckoned most wholesome, but a mixture of green is generally preferred; one ounce will make two quarts of good tea, not more. It is best to put in at once the whole quantity required; by adding a little and a little, the tea is not so well-flavoured, and does not go so far.

Mode of making.—Having the tea-pot heated as above indicated, see that the kettle is *actually boiling* at the moment of making tea, *and not before*. If the water is kept boiling some minutes before tea is made, or if it has ceased boiling and has to be made to boil up again, the tea is never well-flavoured. The tea-pot may be filled up at once, or 'brewed,' that is, put only a small quantity of water at first, just enough to wet the leaves, and let it stand two or three minutes before filling up; the latter mode draws all the goodness in the first filling; the former preserves an uniform goodness throughout, and a more delicate flavour. Tea should not stand more than from five to ten minutes before pouring out. The tea-pot, when on the tray, should always stand on a woollen-mat or rug, by which the heat is kept from passing off; and if the pot be entirely covered with a green baize or cloth bag, the effect will be still more improving to the tea. Finally, To have a good cup of tea, it is necessary to have *good* sugar and cream (for those who can afford it) if those articles are used at all; and they mingle much more smoothly and pleasantly if put first in the cup, and the tea poured upon them.

A Substitute for Green Tea.—A sprig of rue, or a few black currant leaves, will give to black-tea the flavour of green. Choose young tender leaves, fresh gathered, and take care not to over-do in quantity; four currant leaves, or rather less of rue, are sufficient for a large pot of tea.

RECIPES.

To wash cotton Bed-furniture, and printed Calicos in general:—

1. Get rid of as much dirt as possible, by brushing and shaking.
2. Do not let the dirty things lie about in a damp wash-house, or in any way become damp before they are fairly wetted.
3. On no account use a particle of soda, pearlash, or any thing of the kind.
4. Allow plenty of water, and plenty of room in the tub.
5. Use soft water, no hotter than would be pleasant for washing the hands.
6. Rub with soap in the ordinary way. Mottled soap is preferable to yellow. If a general wash is about, the liquor in which flannels have been washed the second time, does very well for the first washing of coloured things; or that in which muslins have been washed a second time, provided no soda or anything else of the kind was used.
7. When the first washing is completed, have ready another tub with water of the same degree of warmth, into which put

each piece immediately on wringing it out of the first liquor.

8. Repeat the process of washing in the second liquor, carefully observing that every part is clean.

9. On wringing out of the second liquor, immediately plunge each piece into cold *spring* water for rinsing.

10. On wringing each piece out of the rinsing water, immediately hang it out, and let it dry as quickly as possible.

11. In hanging up, put any thick double parts next the line, letting the thinner part hang down and blow about. When these are dry, the positions may be changed, and the thick parts hung downwards.

12. If, through unfavourable weather, or any other circumstance, the drying cannot proceed at once, the things had better remain all night in the rinsing water, than be laid about damp. If they are half-dry out-of-doors, when taken in for the night let them be hung or spread in a room, and again hung out early next day. If there is no chance of favourable drying abroad, they should be quickly dried before a fire, or round a stove.

13. If starching is required, a sufficient quantity of made starch may be stirred into the rinsing water.

To make Jannock, or Oatmeal Bread.—Put about six pounds of fine oatmeal in a kneading pan, add to it a small quantity of leaven, previously steeped in warm water, and let it stand all night. In the morning, add a little yeast mixed with warm water. Knead the whole well up, but very light. Lay a coarse wet cloth in a dish, for the purpose of giving a shape to the loaf; put the dough in the cloth, and turn it upon the baker's shovel, which must be first sprinkled with dry oatmeal. Get it into a hot brick or tile oven as quickly as possible, and let it bake for three hours.

Leicestershire Pork Pies.—To thirteen pounds of meat, add half-a-pound of salt, two ounces of white pepper, and as much cayenne as will lie upon a shilling. For the above quantity of meat you will require nine pounds of flour for the crust; to which add two and a-half pounds of lard, three pints of water, and a little salt. The above will make eight good sized pies. The lard should be boiled in the water, and poured in that state upon the flour, *well kneaded*, and made into raised pies while warm. Bake about three hours in a moderately heated baker's-oven.

To cure Ring-worms on the head or other parts of the body.--To one part of sulphuric acid add sixteen to twenty parts of water. Use a brush or feather, and apply it to the part night and morning. A very few dressings will generally cure. If the solution is too strong, dilute it with more water; and if the irritation is excessive, rub a little oil or other softening applicant; but avoid soap.

Waterproof Clothing.--Make the garment of strong unbleached calico; hang it up in a dry place, and, with a brush, give it two coats of boiled linseed oil. Buy the oil ready boiled; a pint will be sufficient for a cape or pair of overalls. Canvas may be prepared in the same way for rick-cloths, or other roofing purposes.

Another way.—Get some weak size, such as is used by paper-makers; make it hot, and stir a small lump of alum, and a small quantity of soap lather into it. Then with a brush apply it to the garment equally all over, as recommended above with the oil. If the garment be of good cloth, the size may be laid on inside.

[The two foregoing recipes have been sent to us by correspondents who vouch for their utility.]

To colour or paper the walls of rooms.—If a ceiling or wall is to be whitewashed or coloured, the first thing to be done is to wash off the dirt and stains with a brush and clean water, being careful to move the brush in one direction, up and down, and not all sorts of ways, or the work will look smeary afterwards. When dry, the ceiling is ready for whitewash, which is to be made by mixing whiting and water together, till quite smooth, and as thick as cream. Dissolve half-an-ounce of glue in a teacupful of water, stir it into the whitewash. This *size*, as it is called, prevents the white or colour rubbing off the wall, and a teacupful is enough for a gallon of wash. Stone colour is made by mixing a little yellow ochre and blue black with the size, and then stirring it into the whitewash; yellow or red ochre are also good colours, and, with vermilion or indigo, any shade may be prepared, according to taste.

If paper is to be used, the wall must be washed with clean water, as above

explained, and while wet, the old colour must be scraped off with a knife, or a smooth-edged steel scraper of any sort. It will be best to wet a yard or two at a time, and then scrape. Next wash the wall all over with size, made with an ounce of glue to a gallon of water ; and when this is dry the wall is ready for the paper. This must be cut into lengths according to the different parts of the room ; on one edge the plain strip must be cut off close to the pattern, and the other left half an inch wide. If the paper is thick it should lie a minute or two after it is pasted, but if thin, the sooner it is on the wall the better. Begin by placing the close cut edge of the paper at one side of the window, stick it securely to meet the ceiling, let it hang straight, and then press it down lightly and regularly with a clean cloth. The close cut edge of the next length will cover the half-inch left on the first one, and so make a neat join ; and in this way you may go all round the room, and finish at the other side of the window.

THE COTTAGE HOMES O' SCOTLAND.

The Cottage Homes o' Scotland fair,
That clead her haughs and hills ;
Whiles hid amang her wild-woods rare,
Or side her wimplin' rills.
Whare thistles wave 'mang weeds sae fine,
Whare brooms and brakes and briers entwine,
Whare linties lilt their sang divine,
Around ilk cottage fair.

Fair fa' the cots o' Scotland fair
Where sauls sincere abide ;
Where a' as ane life's troubles share,
And death can but divide.
May a' thegether cling as lang,
As love wad lisp her soothing sang,
While leaves o' life's lang simmer hang,
Around ilk cottage fair.

AFFECTION'S TIES.

Who that bears
A human bosom, hath not often felt
How dear are all those ties that bind our race
In gentleness together, and how sweet
Their force, let Fortune's hand the while
Be kind or cruel ! Ask the faithful youth,
Why the cold urn of her whom long he loved
So often fills his arms, so often draws
His lonely footsteps, silent and unseen,
To pay the mournful tribute of his tears ;
Oh ! he will tell thee that the wealth of worlds
Should ne'er seduce his bosom to forego
Those sacred hours, when stealing from the noise
Of care and envy, sweet remembrance soothes,
With virtue's kindest looks, his aching breast,
And turns his tears to rapture.

AKENSIDE.

LAMARTINE ON THE BENEFITS OF GARDENING.

As this is the season when so much pure pleasure can be derived from Gardening, we are tempted to give a short extract from Lamartine's essay on gardening, in which he pertinently alludes to the fact that the love of the beautiful is growing wider and stronger every day. 'Gardening,' he observes, 'which was heretofore only a sort of amusement, or domestic luxury, an adornment of the soil, has become now-a-days a new and magnificent object of commerce. At a time when labour fails for man, more than man fails for labour, at a time when to invent a new industry is to invent wealth, occupation, wages, life itself for some workmen—is not this a view fitted to impress the statesman, to touch an intelligent minister of agriculture and of commerce? Do not, gentlemen, suppose this a mere hyperbole or exaggeration. I have just returned from the South, and have seen on the shores of the Mediterranean, a very considerable coasting trade in flowers! Tuscany and Genoa export to the amount of several millions of money, from their flower beds. And one art gives rise to another. After the art of successfully cultivating flowers, has come that of gathering and assorting them, according to their shapes, odours, colours: this art has made such progress at Genoa for instance, has been so studied there, that they combine, intertwine, plait as it were, so weave together roses, pinks, dahlias and ranunculuses, that the bouquets prepared to decorate tables on gala days, bouquets often a yard in circumference, resemble Turkey carpets, vegetable stuffs, odorous velvets, mosaic of plants.

There are vegetable weavers of flowers, who turn out their perfumed fabrics: the flower-girls there, as at Athens, form a class apart. The bouquets which you admire, whose scent you inhale at the *fêtes* of Toulon, Marseilles, Bordeaux, and even of Paris, are woven at Genoa, or at Florence. Hence, the gardening of luxury becomes each day more and more a regular business. Go on, and render it more perfect, and it will one day become a fine art—a school of painting, of which the palette will be the garden.'

FAMILY SECRETS.

How George Jones put Money into the Savings' Bank.—"I say, Jones! I can't think how it is your wife goes pretty nearly every Monday to put something into the Savings' Bank."

This remark was addressed by a workman, with a pipe in his mouth, to an acquaintance whom he overtook one morning in the street, on his way to work.

"Like enough, Jenkins," answered the other, "and two years ago I should have said just the same; and if I am a little wiser now than I was then, it is but fair to say that my wife is to be thanked for it."

"How so?"

"Why, you see, two years ago I never went to work without a pipe in my mouth, and besides that, there was always a smoke or two in the evenings. My wife sometimes complained that the smell of tobacco poisoned the house, and made the children cough; but I didn't care for that, and felt sure I couldn't do without my pipe."

"That's true," said Jenkins, "a man as works ought to smoke."

"It's more than likely that I should say so too," continued Jones, "if my wife had never done anything but complain. But she's a tidy hand at reckoning, and one night, when I went home, she had got some figures set down on a bit of paper."—

"What for?"

"I'll tell ye Jenkins. You see, it never cost me less than sixpence a week for tobacco: well, as there's 52 weeks in a year, Harriet set down 52 sixpences; these 52 sixpences made 26 shillings, and then she wrote down underneath all the things that could be done with six-and-twenty shillings. First—the money would buy nearly or quite coals enough to carry us through the winter; second—it would pay for half a-year's decent schooling for our biggest boy; third—it would buy a bedstead, which we very much wanted; and then in the matter of clothes and shoes there was no end to the good that was to be done with six-and-twenty shillings."

"Did you believe it?"

"To tell the truth, I felt a little put out at first that my wife should seem to have more sense than I; so I sat down and lit a pipe, just to shew that I was master. Well, Harriet didn't say anything, she let the bit of paper lay on the table, and after a minute or so I took it up and looked at it, and read it over again; and then I looked at our boy Tom who was reading an old ragged book, and thinks I, it's a little too bad not to give the boy a chance, seeing that he's fond of his book, and so without another word I emptied my tobacco-box into the fire."

"What a flat!"

"Well," said Jones, without heeding the interruption, "Tom looked at his mother as the stuff blazed away in the chimney; and she—why Jenkins, her eyes shone as bright in a minute as they used when I first went a-courting her—she jumped up, and gave me a kiss, and said, 'thank ye George, for such a good beginning,' in a voice that made my blood tingle with pleasure: talking about it even makes me almost ready to dance."

"And did you stick to it?" asked Jenkins.

"Why, not exactly; but somehow I managed to get through the first week, and then I took to the pipe again. However, after what had happened, I was ashamed to smoke at home, so I took a whiff in the street or at shop."

"Ah, I thought you wouldn't be able to do quite without."

"Wait a bit," replied Jones; "my wife talked to me about it once or twice in a quiet way, and at last I promised her

I'd give it up. It was hard work though, to wean myself from tobacco. Sometimes I mixed a little brimstone along with it, and then the smoke half-choked me ; but the best thing was tying a quarter-of-a-pound of lead to the end of my pipe, this made it so heavy that my jaws ached again with holding it, and I was obliged to take it out of my mouth every two or three minutes, and lay it down on my bench. But 'twas desperate work : at times I felt inclined to keep on smoking whether or no, and I half wished Harriet would say something to make me angry, and give me an excuse for keeping on; but she didn't, and before three months were over, I cared no more for tobacco than I did for physic."

"You can't be in earnest," said Jenkins, "for I don't see why a fellow should give up smoking just to please his wife : some women like the smell of a pipe."

"I'm quite in earnest : my wife didn't ask me to leave off just to please her ; she proved that we should all be the better for it at home, and without worrying me she took care somehow I shouldn't forget that sixpence a week made one pound six a year."

"'Tisn't much to brag of, after all," retorted Jenkins.

"That's true in one sense," answered Jones, "but then it's a beginning ; and as the saying goes, he who begins well ends well. It wasn't long before I began to think that two shillings or more was going away every week for beer: two shillings for beer and sixpence for tobacco made half-a-crown ; and half-a-crown a week is £6 10*s*. a year : a nice little sum. It's hard upon three years now since we began ; we have kept ourselves and the house comfortable, the children have had good schooling ; we have had a holiday or two, and now there's a matter of eleven pounds of ours in the Savings' Bank. You'll understand now why my wife goes to add a little to it pretty nearly every Monday—but here we are at the workshop, and I am at the end of my story."

"Just one word before you go in," said Jenkins, "do you think anybody else could leave off drink as well as you?"

"Not a doubt of it ; leaving off beer wasn't half so hard as leaving off the pipe. Try it, Jenkins, and before the year's over you'll have a pound or two safe in the bank."

Jenkins shook his head, and walked on, but by the time he reached home and sat himself down to his loom, he had half made up his mind to try whether what Jones said was true. Some day we shall hear if he prospered.

How Harry Dixon began to think. —The family dinner was just over—Mr. Dixon had gone to his workshop—some of the children had run out to play before going back to school ; but Harry had taken his chair near to the fire, where he sat watching his mother as she cleared the table.

Harry was about ten years old ; a good-tempered boy, and a handy little fellow in his way ; but like many other boys, he did things without thinking, and so brought himself into trouble. His father often said that the young chap had no head, and was of no use to anybody.

When Harry heard his father say this he always felt unhappy, and wished he could become a useful boy all at once, and so make up for past troubles. His good disposition made him willing to render such services as were in his power ; but he did not know how much power of this sort he had, as he ran about playing with his brothers and sisters ; and in the fun and frolic a mishap of some kind was pretty sure to happen.

Perhaps, if Harry's father and mother had been a little better acquainted with the nature of children, they would have seen that mishaps more often arise from want of thought than from malice. Many a little blow or push is given, many a thing knocked down without any intention to do wrong ; and very often the fear and sorrow which children really feel on such occasions are quite sufficient, with a gentle admonition, to make them more careful for the future. But Mr. and Mrs. Dixon were not very well informed on this subject, and so their children, like many others, had to find out several matters for themselves, and learn prudence from punishment.

Harry, as we have said, was sitting by the fire ; he had done no mischief that day, and felt pretty comfortable as he watched his mother's proceedings. She had nearly done clearing away, when he saw her take up the bread-basket and water-jug with one hand, and with the other a saucepan from the hob, and carry all three at once away to the pantry.

"How clever my mother is," said Harry to himself, "I should never have thought of making one journey do for three things." Then he sat silent for a time, wondering whether he would one day be able to do the same. He had often heard his mother say, "make your head work for your hands," and now he understood what she meant.

The first moments of self-consciousness—that is, becoming aware that we have a mind within us to direct our actions—afford us true pleasure. Those few minutes of reflection formed one of the turning points in Harry's history, and for the first time in his life, he began to think.

After this, it seemed to Harry that difficulties were not so formidable as heretofore; and he scarcely ever woke in the morning without thinking about what he should do through the day. In this way he found out that it was possible for even a young boy to be very useful at home. One of the first things that he did was to collect all the large stones he could find, and with these he made a pathway across the yard to the ash-pen and water-butt; and this saved the kitchen from a good deal of dirt, especially in wet weather. He pulled up all the weeds and grass from the garden paths, and made a rule of sweeping them every other day; besides which he mended the fence, and put a new hasp to the gate. He found time, too, to keep the books in tidy order on the shelves; and, setting his wits to work, he contrived to put a new leg to the washing-stool, and to mend the broken rails of the kitchen chairs. In short, Harry found that when people are willing to be useful they can do almost anything, and he would never have believed, had he not proved it, that so much could be done in a day. He did not give up play, but by making his head work, he gained time for work as well as play. He had not only the satisfaction arising from a true desire to do his duty, but he gained the approbation of his parents: his mother often looked after him as he ran off to school, with a glad eye and thankful heart, that her young son was such a comfort to her.

[Our youthful readers must not suppose that this is a tale merely made up for the occasion; it is a true history. Harry is now an old man, yet he can still look back with satisfaction to the time when he began to think.]

GARDENING AND RURAL AFFAIRS.

THE IMPORTANCE OF A PROPER CHOICE OF FRUIT-TREES.

The value of a few good fruit-trees in every garden, is or ought to be well understood; but the folly of continuing the cultivation of inferior kinds, is as difficult to explain as to remove. Poor trees are an annual source of vexation, and yet they are allowed to stand year after year, although acknowledged to be decidedly bad; rather than sacrifice a crop or two of worthless produce to insure a subsequent profitable return. To no one is the quality of fruit-trees of more consideration than to the cottager, and those who have only small gardens: for here it is of the first consequence to make the most of the allotted space, which can only be done by steadily adhering to the determination to grow nothing but the best; how then can the inferior kind be tolerated. We sometimes hear, as an excuse for the presence of an unprofitable tree, that it was standing when possession was taken, and that the owner will not permit its removal. This is a frequent, and at the same time injudicious proceeding on the part of landlords—though not a valid reason for the continuance of useless appendages to the garden; improvement may still be effected, by grafting, budding, or some other of the means known to the horticulturist. In the case of an old inferior variety of the apple or pear, nothing is easier than by crown-grafting, (see p. 37, vol. 2, *Fam. Econ.*) to cover it with a new head of the most approved kind, and thus in a couple of seasons convert the most austere and barren of trees into fruitful and healthy specimens, producing crops of delicious and valuable nature. In a class of fruits so extensive as that of the apple or pear, it is easy to conceive the great difference existing even among the superior varieties; some are distinguished by their early ripening, others by their exquisite flavour, a third portion by the length of time they may be preserved, while only a few combine the most of these qualities; all are admissible and proper where there is room for them; but in gardens of limited extent, we must look for the combination of at least good flavour with keeping qualities, so that if the entire crop cannot be consumed soon after gathering, there may be no waste. Apples are to be esteemed before pears, because of their superiority as a culinary article; but even if an agreeable change of diet is considered of more importance than the produc-

tion of dessert fruit, it does not follow that the cottager is to grow nothing but kitchen apples; it should be remembered that the finer flavoured kinds are as certainly the best when cooked as if eaten in the natural state. And as a further inducement to their culture, should there be some little superabundance, such kinds always realise a higher price than those which can only be used in the kitchen. Should any one doubt the fitness of dessert apples for cooking, let him taste a pudding made of Northern Greenings, one of the best kitchen apples, and then try another of Ribston pippins, and we do not doubt his declaring in favour of the latter. The same rule applies to pears, plums, cherries and indeed all other fruits, and except to meet a large consumption of table fruit, there is no reason to cultivate the kitchen varieties at all, as selections may be made from the former which will ensure equal forwardness, productiveness, and keeping qualities, with all the extra advantage of superior flavour; in short, the best dessert fruits are the best for culinary purposes, and therefore always to be preferred in the garden.

The arrangement of the trees in small gardens is also matter worthy serious consideration; if standards are grown at all, they should have stems of seven or eight feet in height, so as to raise the head so far from the ground as to allow of the latter being cropped beneath the trees, and wherever the growth of vegetables is carried on along with them, each tree should be at least twenty feet every way from its neighbour. Planting in straight lines that run from north to south is most advisable, as then each specimen receives its due share of early light and sunshine, and if kept apart about the distance mentioned, the shadow of the one never reaches to the next. The worst possible form for a fruit-tree is the absurd half-standard, or those allowed to form round heads on stems only three or four feet high; the tree itself is not benefitted in any way by the adoption of such a form, while the ground below is rendered useless for crops. The best for a small garden is unquestionably the espalier form; trees of this kind trained by the sides of the paths are ornamental, occupy but a narrow space, and though they do not bear quite such heavy crops as the standard, the fruit is always finer, in consequence of the increased light and air it enjoys. Gooseberries, currants and raspberries, treated in this way are wonderfully improved, especially the last, which then require no stakes; the stools being planted four feet apart, half the canes rising from each are bent to meet the corresponding half of the next stool, and there tied one lot to the other: this forms a series of arches, from the upper part of which the fruit hangs, almost clear of the leaves so as to have plenty of air, with just the requisite shade throughout its formation; while the new shoots to bear the succeeding crop are rising erect between each arch, robust and short-jointed, from the nature of their unconfined position.

The following brief list of fruit-trees is selected as most suitable for small gardens.

Apples. *Aromatic Russet.*—Medium size, conical, green, tinged with russet, an excellent bearer, ripe in October. Known also as the Spice Apple, Burntisland pippin, Rooksnest, &c.

Blenheim Orange.—Large, tapering slightly from the base, yellow-green, tinged with red next the sun, rich flavour, perfumed, good bearer; in use from October to February.

Claggate Pearmain.—Rather large, conical, dull yellowish-green, tinged with brownish red next the sun, first-rate flavour, abundant bearer; in use from November to March. If only one tree can be planted, choose this.

Court of Wick.—Scarcely of medium size, roundish, greenish-yellow, deepening to orange spotted with russet next the sun, high flavour, excellent bearer; in use from October to March. Known as Golden Drop, Phillips' Reinette, Fry's Pippin, Wood's Huntingdon, Knightwick Pippin, and Week's Pippin.

Devonshire Quarrendon.—Of medium size, roundish, deep crimson, crisp, juicy and pleasant, a good bearer; ripe in August. The best early apple, but does not keep. Sometimes named Sack Apple, Red Quarrendon.

French Crab.—Large, round, dark green, tinged with brown next the sun, firm, sharp, pleasant flavour, an excellent bearer, and will keep two years. Other names—Easter Pippin, Claremont Pippin, Ironstone, Young's Long Keeping.

Gravenstein.—Large, roundish, somewhat angular, pale yellow, streaked with red next the sun, crisp, aromatic, and rich, good bearer; in use from October to December.

Lemon Pippin.—Medium size, oval, bright yellow, easily distinguished by the fleshy protuberance on one side the stalk, firm, brisk flavour, good bearer; in season from October to April.

Ribston Pippin.—Of medium size, roundish, tapering from the base, green-yellow, mottled, and streaked with brown and red, firm, aromatic flavour, tolerably good bearer; in season from October to May. Undoubtedly the finest flavoured apple we have, but the tree is a bad grower, liable to canker, and seldom attains a large or handsome head. Known also as Formosa Pippin, Glory of York, and Travers' Pippin.

Sykehouse Russet.—Small, roundish, greenish-yellow tinged with russet, deepening to brownish-red next the sun, very rich flavour, good bearer; in season from November to March.

Pears. *Autumn Bergamot.*—Rather small

roundish, yellowish-green, tinged with brown next the sun, dotted with gray, very sugary and rich, a certain bearer; in season through September and October. Other names—Bergamot, English Bergamot.

Beurré d'Aremberg.—Rather large, egg-shaped, tapering towards the stalk, very rich, melting and juicy, succeeds as a standard in good situations, but is better against a wall; in season through December and January.

Chaumontelle.—Large, irregularly oblong, yellowish-green, spotted with russet, which increases towards the sun, flesh melting, occasionally gritty, but in general excellent; in season from November to March.

Citron des Carmes.—Medium size, egg-shaped, tapering to the stalk, pale yellowish-green, tinged with red next the sun, melting, rich, and perfumed; the earliest of all, as it is ripe in July.

Duchesse d'Angoulême.—Very large, oblong, inclining to egg-shaped, dull yellow tinged with russet, flesh buttery and rich; in season through October and November.

Glout Morceau.—Large, oblong, thickest in the middle, yellowish-green, dotted with russet, buttery, very rich and juicy, in season from November to January. Should be trained to a wall in exposed situations.

Hacon's Incomparable.—Large, roundish, pale green, streaked and spotted with brown, buttery, very rich and juicy; in season from November to January.

Jargonelle.—Large, long, tapering to the stalk, green, tinged with brown next the sun, tender and juicy; ripe in August. A good old pear.

Marie Louise.—Large, oblong, tapering upwards, rather one-sided, a bright yellow when ripe, brownish, dotted with russet on the outer side, very rich, buttery, and vinous; in season through October and November.

Ne plus Meuris.—Rather small, roundish, uneven on the surface, dull yellowish-brown, dotted with russet, flesh buttery, melting, and sweet; in season from November to March.

Plums. *Coe's Golden Drop.*—Large, oval, yellow, spotted with crimson next the sun, flesh clingstone, very rich and juicy, requires a wall in exposed situations only; ripe at the end of September.

Denyer's Victoria.—Large, roundish, oval, pale red, deepening towards the sun, flesh free, rich, and juicy, a great bearer; ripe at the end of September.

Green-Gage.—Of medium size, round, pale ashy green, tinged with yellow, flesh free, very rich, juicy, and luscious, an uncertain bearer; ripe at the middle of August.

Prince of Wales.—Large, similar in appearance to the Orleans, of which it may be regarded as a variety, but as it blooms late, is a more certain bearer · ripe about the middle of August.

Reine Claude Violette.—Medium size, roundish, purple, with pale blue bloom, flesh free, rich, and delicious; ripe beginning of September.

Royal Hatine.—Medium, roundish, purple, with blue bloom, and dotted or streaked with yellow, flesh free, very juicy and rich, ripe in August.

HEDGE-ROW TIMBER.

The Importance of Preserving one Leading Shoot.—All writers insist on the necessity of encouraging the leading shoot, particularly in Hedge-row Timber, and checking all others which have a tendency to compete with it, so as to divide the stem into forks or clefts. By increasing the number of leading shoots, the strength of the nutritious principle is rendered in a great measure ineffectual. In the application of this system to practice the forester's simple rule will be, that all branches taking a vertical direction, and thereby becoming robbers of the main leaders, should be removed or foreshortened, and that no branches growing horizontally should be cut off, except in those cases where, from their size or number, they produce an evident stop or falling off in the growth of the main stem; or where, from their being overhung by larger or more spreading branches, they have begun to decay. Pruning is only of much advantage when performed early, and continued annually in those side-branches which are apt to bear too great a proportion to the leading branch, thereby modifying the tree, and directing its energies *gradually* to the top, preserving at the same time a sufficient quantity of foliage. When hedge-row trees, and trees in open situations, are intended for profitable timber, pruning should commence at an early period of their growth, encouraging the leading or main stem by displacing or foreshortening all over-luxuriant or aspiring side shoots, by ripping off buds likely to contend with the leader, gradually clearing the lower part of the stem or side shoots, and forming the top into the shape of a very open cone. All lower branches should be removed before they exceed an inch in diameter. Trees thus managed will form close and healthy stems without any interior blemish, and be trained to any reasonable altitude, according to the soil, subsoil, and situation in which they grow.

The chief rule to attend to is to keep the top to taper, preserving the leading shoot clear and free from knots, and the stem free from all the largest rooted branches, leaving those only of the smaller kind that are requisite for the health and support of the tree, and clearing the tree from the bottom of all the branches as it advances to age. But the trees should be cleared very slowly at first when they are young. Only keep the branches that are left thereon small, by often pruning, so as not to

injure the tree when it becomes timber. By the heads of the trees being kept tapering when young, the rapidity of the growth is greatly increased, on account of the sap being confined to the most useful points, and not allowed to spread in support of large unnecessary branches. By attending to these rules, and the operation of pruning being executed every year, the stem will be extended to a great height, and in the end the grand object will be attained, viz., the production of sound, unblemished timber.

'Reform your hedge-rows,' it is to be hoped, will become a popular cry in this country. Let me recommend the Landowners to reap and sell when the crop is ripe—remove from the hedges all those useless deformities of nature called pollards, and all those stunted, scrubbed trees, to make way for the young and flourishing, at from ten to fifteen feet apart, and they will do but little harm to the tenant, and be a source of five times the profit to the landlord. I went over an estate some time since with a gentleman's steward, for the purpose of surveying the timber. Having observed that he was passing over scores of trees that ought to have been cut down thirty years ago, I said here is a worthless tree that has been standing no doubt one hundred years and is doing the tenant an average injury of one shilling annually, and its greatest value, I should think, was only four shillings. "Oh! then," said he, "if it is worth no more, I should not wish to cut it down." Perhaps, thoughtful reader, you will say the steward and the tree were much alike—that they were both past improvement. In such a maritime country as England, I am of opinion that to cut down all the trees and dig down too many of the fences, would be a great injury. Thin and prune the hedge-row timber as you do turnips, the wider apart in reason the better the crop—for I still contend that where one hundred elm-trees, grown in mass are worth a crown each, or £25, that ten grown in the same space and of the same age would be worth from £30 to £40!—*Newspaper.*

DIRECTIONS TO BEE-KEEPERS FOR APRIL.

There will be a great increase of activity in the hive this month. As the Spring opens, flowering plants and fruit trees will be in bloom. On account of this increasing supply of food from abroad, there is the less necessity for feeding; yet it should not be entirely discontinued, particularly if the weather prove cold or wet.

Multitudes of bees will now be seen passing out of the hive, and returning richly laden with honey and farina. There will be great pushing, and apparent confusion at the entrance, in consequence of the additional labours of the season; for this reason you must enlarge the mouth of the hive, but not yet to its full size.

It is not uncommon at this season to find a hive which exhibits none of this industry and activity. Bees, few in number, and to all appearance without any object, may be seen carelessly going out and in, or lazily burring before the hive. If there is no want of honey, the most probable cause of this inactivity is the death of the queen, from some accident during the winter. The bees in such a case, gradually forsake the hive, and mostly perish, though some few probably become united to other stocks. There seems to be no alternative, as soon as the loss of the queen is discovered, than to endeavour, by removing the hive to a dry place, to preserve the lives of as many of the bees as possible, in order to unite them with a late swarm, to which they will prove of considerable benefit.

Every thing necessary should be prepared *now* for the reception of swarms which may be expected during the next two months. Then there will be no running hither and thither, while the swarm takes wing, and is lost through your delay. Hives or boxes, if you intend to make use of them, must be kept dry and sweet, stands or stools to place them on must be prepared. A hand brush, leather gloves, crape, or other covering for the face, must be placed in readiness; and all the apparatus we have described which you intend to adopt should be at hand, you will then be fully prepared for whatever casualty may occur, and also for testing the value of the improved system of bee-keeping we have endeavoured to unfold.

As bees require water to drink, especially during this and next month, when the weather is warm and dry, it is necessary to place some for them, if there is no pond or rivulet near. Cotton says that 'in the Isle of Wight the people have a notion that every bee goes down to the sea to drink once a day. Water is needful for them in the breeding season, and they will drink water with salt in it, and like it better than the freshest brook that runs. It is very curious to see how they will flock by thousands to the drinking-troughs in April, May, and part of June; and then their thirst seems to be quenched all of a sudden, for not a bee will be seen at the drinking-trough. The reason seems to be that they do not want so much water after the greater part of the young brood is hatched.'

Shallow dishes or plates may be filled with water, having thin boards pierced with small holes placed to float on them, from which the bees may drink without fear of drowning. Small pebbles, or moss, placed in the plates with the water, will answer almost as well.

LAVENDER.—Every cottager should cultivate lavender in his garden, not only for its fragrance, but its many other useful qualities.

VARIETIES.

Gas from Water.—This new discovery, observes the *Nottinghamshire Guardian*, which is being adopted very generally in Lancashire towns, is exciting much attention in this neighbourhood, and as many of our readers may not be enabled to view the apparatus at the Basford Iron Works, we give a short description of it. That now supplying Mr. Wakefield's Works only occupies about five feet square, without the gasometer, but including the fire, and consists of two retorts, one occupied by charcoal, and a hollow piece of perforated iron, and the other by a mass of chains. Two pipes and a small iron box act as purifiers. For lace-gossing, &c., water, and water only need be used; but where a brilliant light is required, as for factories and private residences, a small quantity of oily matter (which Mr. Wakefield finds superior to rosin or tar) is added, and the result is, a gas more brilliant than that obtained from coal, and perfectly free from smell and dirt. The apparatus we have alluded to, will produce 1000 feet in ten hours, at an expense of less than two shillings, and would cost from forty to fifty pounds; but one calculated for a private family would be put up for ten pounds, including the license.

Truth.—Truths come slowly upon man, and long it is before these angel visits are acknowledged by humanity. The world clings to its errors and avoids the truth, lest its light should betray their miserable follies.—*R. Hunt.*

Keeping of the Heart.—The tradesman who keeps his heart in his cash-box, will not be long, whatever may be his intentions, ere he will find it to be corroded by unjust gains. If our heart does not sanctify our wealth, we may rest assured that the wealth we obtain will soon corrupt our affections.

'A Little Learning is a Dangerous Thing.'—It is universally admitted that the first draughts of knowledge are apt to intoxicate the soul. A deeper acquaintance with the mysteries around him may indeed tend to humble any man, by fixing his eyes on his own absolute lack of knowledge, rather than on his relative superiority. But as he first emerges from the mere level, it is rather with those below him than with the heights which soar far above that he is disposed to contrast his standing-place; and so the lowest eminence may swell easily into a mountain, and the half-learned man may be fearfully elated with an amount of knowledge which would seem to one above him to be nothing but a marvellous ignorance.—*Bishop Wilberforce's Sermon at Oxford.*

Industry and Integrity.—There is nothing possible to man which industry and integrity will not accomplish. The poor boy of yesterday—so poor that a dollar was a miracle in his vision; houseless and breadless; compelled to wander on foot from village to village, with his bundle on his back, in order to procure labour and the means of subsistence—has become the talented and honourable young man to-day, by the power of his good right arm, and the potent influence of his pure principles, firmly and perpetually maintained. When poverty, and what the world calls disgrace stared him in the face, he shuddered not, but pressed onward, and exulted in high and honourable exertion in the midst of accumulating disasters and calamities. Let the young man be cherished; for he honours his country and dignifies his race. High blood—if this courses not in his veins, he is a free-born American, and therefore a sovereign and a prince. Wealth—what cares he for that, so long as his heart is pure, and his walk upright? He knows, and his country knows, and his country tells, that the little finger of an honest and upright young man is worth more than the whole body of an effeminate and dishonest rich man. These are the men who make the country—who bring to it whatever of iron sinew and unfailing spirit it possesses or desires.—*American Author.*

Consumption of Bread.—Estimating that there are 24 millions of bread-consumers in Great Britain and Ireland, (leaving out the four millions of potato-eaters), and allowing each person one and a-half loaves per week, it is 36 millions of loaves. Admitting that each quarter of wheat makes 136 loaves of bread, it requires 168,656 quarters of wheat per week. To this add 10 per cent. for flour used in other articles, and it gives 295,521 qrs. as the weekly consumption of wheat, or 15,367,092 qrs. annually. London and its suburbs, with its two millions of population, consume three million loaves weekly, and with flour, require 24,626 qrs. of wheat. A quarter of wheat will give 50lb. of flour per bushel, of the quality which makes best seconds bread, 400lbs. altogether; and that quantity of flour will make 134 quartern loaves. A quartern of wheat, ground into flour, and taking out only the rough bran, say about 5lb. to the bushel, will yield 58lb. per bushel of such flour, and that will make 141 loaves the quarter. A quarter of wheat ground down into rough meal, without taking any bran, will give 62lb. or 63lb. of meal, and that will make about 166 loaves of healthy good brown bread.

Knowledge and Judgment.—The man who would speak truth, must know what he troweth. To do that he must have an uncorrupted judgment.—*Helps.*

HOME EDUCATION.

FIRST PART.

"A MOMENT later, and it would have been killed! Why don't you take care of the child?"

Yes, the child might have been killed. It had strayed from the heedless mother; and while she, forgetful of her charge, was gossipping with an acquaintance, on the pavement, the youngster had wandered to the middle of the street, just as a coach drove rapidly down it. The driver pulled up his horses as soon as he saw the peril of the child, but scarcely in time to prevent the mischief, if an active young man had not run to the rescue. Snatching the infant from beneath the horses' heads, he delivered it into the arms of its culpable mother, accompanying the kind action with the deserved censure;—"A moment later, and it would have been killed! Why don't you take care of your child?"

The reproof was just. What mother is there that would not have blamed the thoughtless woman who could, for a moment, thus forget her own offspring, and suffer it to straggle to the very verge of destruction? And yet—and yet, we think there may be parents who habitually exhibit a more deplorable carelessness.

Our object, however, is neither to blame nor to reproach, but—shall we say, to teach. Nay, we would rather adopt a more modest form of speech, and put it thus:—to remind you, dear reader, if you are a parent, that there are destructions worse than horses' hoofs and coach-wheels, to which your children are exposed, and from which you are urged by parental affection and enlightened reason to guard or rescue them.

Father, Mother,—look at your infant as it lies before you, in happy unconsciousness of 'the ills that flesh is heir to.' It smiles in its sleep, and your hearts warm towards it afresh. You wonder what will be its fate in after life, if it should live; and you sigh while you wonder. And well you may, for the highest honour, or the lowest degradation, may be its future portion. From such, in mind and matter, as that slumbering child, have arisen the wise, the good, the honourable:—benefactors of the human race, and heirs of immortal renown; and from such also have descended the foolish, the vicious, the debased;—curses of humanity, and sharers in everlasting contempt.

What think you of this contrast? Is it startling? It is more than startling: it is faithful and true.

You acknowledge this, and you would sacrifice much to secure to your child the better portion; but this you cannot do. You can but hope.

Stop, reader,—you may do more than hope; you can act. It is in your power to give your child a HOME EDUCATION so efficacious as to raise a barrier between him and the power of evil;—to clear the obstructions which otherwise would inevitably impede his progress in 'the way that he should go.'

HOME EDUCATION! It must be acknowledged that the subject is formidable—perhaps repulsive. The hard-working man, the honest and industrious, but, it may be, embarrassed tradesman: the toil-worn and care-worn mother, may each and all have something to plead in behalf of deferring the consideration of so serious a matter. There is, however, in reality, no need for alarm, while there can be no just ground, in any case, for exemption; the fact being, whether or not confessed, that in every family, Home Education of one sort or other,—good, bad, or indifferent—is actively progressing. It will be our object, here, in as few words as need be, and as plainly as may be, to point out some particulars in which a *right* Home Education, of the simplest kind, may lead to the most valuable results in future years. Like 'bread cast upon the waters,' it shall be seen again, after many days; for we hold with firm faith to the inspired maxim;—'Train up a child in the way he should go, and when he is old, he will not depart from it.'

Before we proceed farther, we again invite you, reader—if you be a parent—to step, if but in imagination or recollection, to the cradle, cot, or bedside of your slumbering child or children:

there they lie, calm, placid and happy in sleep, but hidden within are the germs of every unruly and unholy passion. Yes, disguise it as we may, forget it as we can, it cannot be denied or questioned that moral evil is at work in the world—is at work *there*. It has manifested itself in a multitude of instances, within the reach of your memory: it will manifest itself again. Plainly then, the first efforts in Home Education should be, to repress, control, and counteract, these tendencies, just as the first operation of a gardener is to pluck up or destroy the weeds, preparatory to the turning over of the soil and the sowing of the seed.

This *must* be done, or the child bids fair to be ruined. Nothing more than neglect is needed—though much more is frequently done—to produce a luxuriant, and an early crop, of vice and misery; for it is not true, 'that there are some natures so good, that they *will* go right when all about them go wrong.' 'A child left to himself,' is the declaration of revealed truth, 'bringeth his mother to shame;' but we fear that many mothers, and fathers too, though they think little of the matter themselves, deserve the pointed rebuke, 'Why don't you take care of the child?'

If our principle be sound, then, it is evident that the education, properly so called, or the moral training of a child, should commence at a very early period of its life. This is no less needed for the future welfare of the child itself, than for the present peace and comfort of all around. And here we may take the liberty of adducing the example and quoting the words of one who was eminently successful in the training of a large family.

'In order to form the mind of children,' writes the mother of John Wesley, —'the *first* thing to be done is to *conquer their will*. To inform the understanding is the work of time, and must proceed by slow degrees as they are able to bear it: but the subjection of the will is a thing that must be done at once, and the sooner the better; for by neglecting timely correction, they will contract a stubbornness and obstinacy which are hardly ever conquered; and never, without using such severity as would be as painful to me as to the child. In the esteem of the world, they pass for kind and indulgent, whom I call *cruel* parents, who permit their children to get habits which they know must be afterwards broken. When the will of a child is subdued, and it is brought to revere its parents, then a great many childish follies and inadvertencies may be passed by. . . . . I insist upon conquering the *will* of children betimes, because this is the only strong and rational foundation of a religious education; and without which, both precept and example will be ineffectual. But when this is thoroughly done, then a child is capable of being governed by reason, till its own understanding comes to maturity, and right principles have taken root in the mind.'

We presume that these sentiments will commend themselves, by their evident soundness, to the judgment of every reflecting parent; but before we venture to say: Act according to the principles laid down, it may not be amiss to interpose a caution or two.

For instance,—It is absolutely necessary for the welfare of your own child, that *its* self-will should be counteracted; but beware that *your own* stronger self will be not the opposing motive. It is very possible for parents to fancy they are consulting the interests of their children by arbitrary and tyrannical proceedings, which sufficiently prove to all beside that the main thing consulted is a determination to carry all before them: to do what they like with their own. Whenever this is the case, failure must ensue. For the time being, indeed, the will of the weaker yields to the will of the stronger; but yielding, it is not overcome, while upon it is grafted dogged obstinacy, unfilial dread, and an engrossing inclination to domineer in turn, over the weak and defenceless. A writer on education has advocated and recommended the plan of purposely thwarting children, more or less frequently, in their natural and proper desires and enjoyments, just in order that self-will may be effectually subdued, and resignation induced. For example, he would advise a parent to put a toy into the hands of a child, and then, when childish pleasure was at its height, to take the toy forcibly away. We hold such a system as this to be the very wantonness of tyranny, and would spurn it with all the warmth and generous indignation of

outraged humanity. To call such a proceeding by the sacred name of moral training, is in itself a prostitution—a very perversion of terms. Every act of absolute authority on the part of a parent, should result from well-founded reasons, uniform and consistent with each other ;—just such as would commend themselves to the approval of an unprejudiced mind. Children are often spoken of as irrational beings, incapable of perceiving the force of argument, and only to be acted upon by physical force. Such is not the case. Long before they can hold converse, except by signs, children can and will reason with some degree of clearness ; and have a few correct notions relating to justice.

Then, to be efficacious, the discipline of the will, must be uniformly, consistently, and unwaveringly carried out. There should be no flagging of just parental authority. Children have their rights, and it is equally unjust and impolitic towards them to permit *that* to-day which you forbade yesterday, and which you will probably forbid to-morrow. We, ourselves, could not comfortably or safely exist under such an imperfect and irregular kind of government ; and it is fearfully mischievous to impose it upon our children. It is not the way to conquer self-will, and to 'take care of the child.'

Once more : this first step in Home Education, may be, and should be, accompanied by the most lively and evident affection. It is said of some celebrated statesman, that such kindness and gentleness marked his intercourse with all the world, that it was pleasanter to be refused a favour by him, than to receive it from another. Let parents, after this same fashion, conquer the self-will of a child. Let it be done—it must be for the child's sake ; and let it be done with all firmness : but let it also be done with all kindness, out of the overflowing fount of a father's or a mother's love,—and the subjection will be accomplished with half the pain and double the effect. There is a wonderful power in love ; and there is deep truth, emphasis, and beauty in the expression—'I drew them with bands of love.' In extreme cases, it may be desirable and necessary to resort to corporal correction ; but under a system of Home Education such as we would advocate, these cases could rarely occur. The violent and self-willed, the indolent and incompetent, or the yielding and vacillating, may find it pleasurable or expedient constantly to hold the rod '*in terrorem*,' over the helpless and shrinking child ; but it will assuredly be at the expense of every generous principle. The obedience of a child thus disciplined is the obedience of a slave, under the influence of fear that 'hath torment.' 'Perfect love,' on the other hand, 'casteth out fear.'

One other caution must yet be added : —In striving to overcome the self-will of a child, the parent should be quite certain that some other emotion be not mistaken for it. An error committed in this respect would result in lasting injury. And it should be remembered that much in the actions and demeanour of a child may bear the aspect of wilful obstinacy and rebellion, which may possibly proceed from totally different causes, such as fear, ignorance, misunderstanding, or physical inability. We have read of a person who, properly enough, set about to correct in his child, the wrong pronunciation of a word. The child had not yet learned to speak plainly ; but the father remembered that on one occasion, it had rightly pronounced that word ; he therefore believed that it could pronounce it rightly again. But the child, according to his belief, was perverse, and would not do as desired. Then began a contest. The father said, "You must and shall." The child said, "I can't." "If you do not say the word as I say it," said the father, "I must whip you." The child repeated the word according to its former method. Once, twice, thrice, the child was severely castigated, until its every muscle quivered with bodily pain and mental agony, while still persisting in its inability to do as required. At last, when the parent had almost given up the contest as hopeless, the child's tongue was unloosed, the word was pronounced according to rule, and the father congratulated himself on having obtained a victory over the self-will of his child. But was it so ? We may rationally doubt whether that child was not more cruelly dealt with. It argues little to say that having rightly pronounced the unfortunate monosyllable, or dissyllable, once, it was easy rightly to pronounce it again. It very likely was neither easy nor, at the time, possible until by some

fortuitous accident, the lips moved themselves involuntarily in the right way, and the proper sound was produced. Many instances of a like nature occur to us. We remember seeing a boy compelled to swallow a large piece of fat, which he declared himself unable to eat; the alternative being a most severe flogging. With infinite loathing, and horrible sickness, the boy at length accomplished the task; and the teacher exulted in the thought that he had conquered self-will. He had done no such thing: he had outraged physical repugnance, and injured the health both of mind and body. He might not have known, perhaps, what he ought to have known, that the stomachs of children are generally incapable of digesting animal fat, and that thence arose the proper and natural dislike to it, which, in this case, produced almost absolute inability. Such treatment is not 'taking care of the child.'

While, however, guarding against every possible mistake, we cannot too strongly urge every parent, to bend the whole energy of mind and affection to this great and fundamental point in Home Education—the government and subjection of the will. This done, every future step is comparatively easy and pleasant. This left undone, all else will be next to unavailing. We offer no apology for dwelling so much at length on this one point of the subject, because of its paramount importance. Indeed, we cannot dismiss it without another quotation from the same source as the former. 'As *self-will* is the root of all sin and misery, so whatever cherishes this in children, ensures their wretchedness and irreligion; whatever checks and mortifies it, promotes their future happiness and piety. This is still more evident if we consider that religion is nothing else than doing *the will of God*, and not our own; that the one grand impediment to our temporal and eternal happiness being this self-will, no indulgence of it can be trivial, no denial unprofitable. The parent who studies to subdue it in his child, works together with God in the renewing and saving a soul. The parent who indulges it, does the devil's work, makes religion impracticable, salvation unattainable:—does all that in him lies to ruin his child, soul and body for ever.'

DOCTOR DAVIDSON AND THE NAVAL OFFICER.

About fifty years since, an officer of the navy, in a weak state of health, was ordered home, and hearing that Dr. Davidson, in Dunfermline, was a skilful physician, he applied to that gentleman. At the first interview, the doctor asked him how they *lived* on board a man-of-war?

"O, we live well, and require good living to perform the necessary duty."

"And you *drink* well too, I suppose?"

"O, yes, plenty of drink."

"Well, Sir, will you favour me with pen and ink, and a bit of paper?"

This was readily got, and the doctor commenced with what the officer generally had for breakfast.—"A bit of cold meat or fowl, with coffee or tea, and bread and butter."

"Very good. Now what came next?"

"Why, after taking the noon observations, the steward had a glass of grog—rum-and-water—ready, before writing the log and working the day's work."

"Then, when did you dine?"

"Generally at two o'clock, when the fife and drum beat the 'Roast Beef of England;' and we always had roast and boiled, with pudding, &c."

"And what did you drink?"

"Except when any strangers were with us, only a single glass or two of sherry during dinner, and we allowed ourselves a bottle of port between *two* after dinner."

"Then you had tea regularly?"

"Yes."

"What had you for supper?"

"We had bread and cheese, and sometimes salt junk, or a devilled leg of fowl, and such like."

"And did you drink wine or negus?"

"O, no."

"What then?"

"A glass or two of rum-and-water cold."

"Only two glasses?"

"Why, sometimes a third one in cold weather."

The doctor then began to reckon up the spirits and wine each day, which he brought into a week, then into a year, and calculated the quantity in bottles and gallons, which greatly astonished the invalid. "Now, Sir," said he, "can you suppose that the Almighty ever intended any human stomach to bear such an indigestible load, day after day, and year after year? No wonder that you have a diseased liver; and if you really wish to be cured, *stop your grog* instantly, and use the medicines which I shall furnish with directions: drink nothing stronger than whey, milk, or water, and eat sparingly of simple food." The officer did so, and in four months was able to take his station again in a sea-going ship.

THE SMITH'S DAUGHTER;

A HISTORY OF HUMBLE LIFE.

"Is it really true that English men and women can be found to live in such places! Can it be that in a Christian country there are people worse lodged than savages in their wigwams! Who would believe it?"

"Society at large will believe it doctor, when they read your report on the subject. They will ask: why is it? and the answer will be—Ignorance! In this free and favoured land of England thousands upon thousands of our working-men live, or rather waste their lives, in such places as this, where every breath they draw weakens their health, and prepares them for disease; and although better dwellings are to be had, the excuse is, nine times out of ten, 'It's near our work.'"

This inquiry and reply passed between two gentlemen, standing at the end of a street in a large manufacturing town, not far from the borders of Shropshire; the one who had addressed his companion as 'doctor,' had the appearance of a clergyman. The street was narrow and gloomy, the houses on each side mean and dirty; there was little or no paving, and in front of every door lay a rubbish-heap in a filthy puddle. On either side, the high black walls of a foundry seemed to squeeze the dingy street into the smallest possible space, and between these walls and the backs of the houses was a yard, common to each tenant, dirtier even than the street, and bordered by a stagnant ditch of reeking filth. You went down two steps into the houses; the brick-floors of the living rooms were worn into deep hollows in places which always looked wet, and the walls once whitewashed, were now covered with ugly stains, red, green and yellow, as though some huge foul reptile had crawled over them, and left a slimy track behind. The smell was dreadful, and inside the houses, so close and offensive, that you were glad to get out again as speedily as possible. In short, it was one of those places, as remarked by the minister on turning away with his friend, "into which, excepting its wretched inhabitants, no one will go, but those who feel it a duty to visit the sick and comfort the afflicted. It is," he said, "one of those spots where disease always finds a victim."

In this street every door but one was open, and dirty women and children were lounging or playing about. It was at one of the end houses that the door was shut, and although there seemed to be here an attempt at decency and cleanliness, you saw that it stood no chance against the overwhelming squalor of the locality. We must go into this house for a short hour or so, for sorrow and suffering are busy there; and what human heart can resist the appeal!

At the time to which our tale refers, a young girl lay ill in the little back bedroom. There was an open casement-window at one end, but the breezes could hardly find their way into such confined quarters, and the air of the room was close and sickening, poisoned by the foul smells of the neighbourhood. The damp had crept up from below, rotting the stairs on its way, and darkened the walls with ugly stains. At one corner of the little window, a tiny glimpse of the blue sky was visible just above the foundery wall, across which the branch of a tree flung a slender twig, bearing a few leaves of the first bright green of spring. On this patch of blue sky, and the twig waving across it,

the young girl who lay on the bed, kept her eyes fixed with a deep and longing look—a look almost of affection. It was painful to witness her efforts to breathe —more like gasping than breathing. At times it appeared to stop altogether, and but for the fixed look at the waving branch, you would have thought she was gone.

She had lain some time without speaking, when slowly turning her head to the opposite side of the bed, where her mother sat gazing tearfully on the fading form of her only daughter—"Mother," she said, is it not time for father and Robert to come home from work?"

"Not yet, my child; but we shall hear the bell ring before very long." The sufferer again turned her eye to the patch of blue sky, and the slender branch, the leaves of which now looked golden as the sun began to drop in the west.

There was another pause: the mother made no noisy demonstrations of grief, fearful of disturbing her daughter's meditations. Presently the patient turned her head once more; her bright eyes now shone brighter than before, and with a sort of wild intelligence. As is sometimes the case with persons in the last stage of illness, her mind had gone back to the days of her childhood:—"Mother," she said, raising her thin white hand to her forehead, "I have been thinking of the time when our home was on the pleasant hills—that is ten years ago. I was six years old then mother, and can remember our snug stone-built cottage as well as though I had seen it but yesterday."

"Ah, my child," interrupted the mother, "we have had little besides trouble since we left it."

"How pleasant it was," continued the sufferer, "to look across to Wenlock and the old Wrekin—although I was so young, the sight of the sun setting behind the fir-trees on the big hill, was a great delight to me—and how the wind used to come blowing over my face: I think it would cure me to breathe it now."

"We must hope for the best, my poor girl," replied the mother, whose hope was evidently at the lowest ebb.

"And the clear spring-water, mother; how it bubbled up in the little hole, and ran away down the bank rattling among the stones! How cool it was in the hot weather—I was never tired of going to fill our tin pail. And there was father working close by; we could hear his hammer and file all day long. It seems to me it was always summer then."—

"And, mother: when father had done work, and sat down to smoke his pipe at the door!—There were seven of us then, and now there's only Robert and me left."

Here the young girl closed her eyes for a minute or two as though overcome by feeling—on opening them she again spoke:—"It was a sad day, mother, when we had to leave that pleasant place. I remember it well; how father tried to look as though he didn't mind it much, while we children and you all cried together. And then, when we came into this dismal house, where the sun hardly ever looks upon us, and where there seems to be no pleasure in breathing—what a change! No more running about on the green grass: if we only had a garden to grow a flower or two it would be something!"

These were the natural outpourings of a young heart, recalling the memory of happier days, of sunshiny spots in life—and regretting that the brightness had been darkened. The mother bent down and tried to soothe her daughter with kind words, and compose her again to quietness. But the patient's mind was too active, her recollections too distinct to be kept from uttering themselves in words. "Mother," she went on, "we were never ill at our cottage on the hills: I don't remember any of us being sick. But there was poor little Bessy, she died before we had been here a twelvemonth; and then Jemmy went; and then another. How cruel it seemed to put them into the big churchyard here, with noisy streets all around it; and where you can't find the graves after a few months. I know it can't be, mother, but my mind would feel easier if I could be laid in the little quiet churchyard away there on the hill. There's only Robert and me left now; and I shall soon go. Perhaps if we had never come here I might have been strong and well as I used to be."

"Perhaps," my child; but who can tell? As Mr. Hall said yesterday, "we must do our best, and leave the rest to Providence." This was spoken with a burst of tears, for the mother's heart was touched afresh on hearing the names of her lost ones.

"Mother," again said the girl, "was it yesterday good Mr. Hall was here? It seems to me now I can remember better what took place years ago than what happened only yesterday. Was it yesterday he talked about the weary being at rest?"

"Yes, my child, yesterday: he said he'd come again this evening."

"It comforted me mother to hear him talk about rest: I'm not afraid to go, and yet it seems hard to leave you and poor father, and Robert: and just as I was beginning to be useful with my needle. Who'll mend their stockings now? If I could only go back to our old cottage again mother; I can't help fancying I should get well. See how the branch shakes mother—what would I give to feel the breeze on the hills once more!"

At this moment, a foot was heard hastily mounting the ricketty stair, and directly afterwards a youth entered the room. He wore the soiled fustian-dress of a filer; his face was hot and grimy, and his feet dusty, as though he had just come in from a long walk. He appeared to be a year or two older than the poor girl on the bed, whom he now approached, and held out before her eyes a blossomy branch of May. The snow-white crimson-streaked flowers clustered thickly upon it, and its delicious perfume filled the close room with a breath of spring. The youth was Robert: as he held out the branch to his sister he said, "It comes from the old hedge, Hannah, where we used to watch the birds fly in and out, and gather red berries years ago."

Poor Hannah! she stretched out her hand eagerly, and grasping the branch with trembling fingers, brought it to her face. "Mother," she said, drawing a deep breath, and speaking through the fragrant blossoms that concealed her features—"mother, it smells of the hills!" A sound as of a faint sigh followed; and then all was still.

The parent was unwilling to disturb her daughter's enjoyment; but alarmed at the continued stillness, she loosed the fingers from their grasp, and raising the branch of May, saw that the silent one's eyes were still open, but with a vacant and meaningless look. The spirit that once lit them up with love and hope, that suffused them in sadness and sorrow, had departed.

The mother's cup of bitterness was full; and she vented her grief in loud bewailings. Her husband, who had just left work, entered unperceived, nor was she aware of his presence until his heavy foot sounded on the floor beside her. He made a sign to Robert, and they led her between them from the chamber of death.

They were still half-stunned as it were by the calamity, when two gentlemen came into the low room—good Mr. Hall, and the doctor; the two who had stood talking at the end of the street in the morning.

The sight of the three mourners told them that all was over, and the minister sought to comfort them with words of hope. But the father shook his head, "Wasn't it misfortune enough," he said, "to be drove from our place on the hill out yon, without losing my boys and girls one after the other?—It's hard to bear."

"We can but do our best, my friend," answered Mr. Hall, "and leave the rest to Him who over-rules all things for good. And though when the consequences of our neglect and ignorance come upon us we are apt to murmur, yet ought we not rather to strive to avoid these evils for the future. The doctor here will tell you that people cannot go on breathing foul air year after year without losing their health."

"Ah, sir! if I'd only a-known that ten years agone, mayhap I should have all my children about me now. But what could a poor man do, sir? It lays near to our work."

"That is not the only consideration," rejoined the doctor, "health is the first of blessings, and we ought to be willing to make some sacrifice or take a little trouble to maintain it. There are some nice little houses on the outskirts of the town, in a pleasant, airy situation, that would just suit you. Your wife will never be well while she stays here; if you like I will speak to the landlord about one."

"Thank ye kindly sir, for I havn't the heart to go about it myself just now; and true enough, missus have looked bad a good while. Take the house for me sir, and as soon as poor Hannah's put into the churchyard we'll move."

The poor man's heart was full; his affections suffering through lack of knowledge. The gentlemen spake yet a few words of kindness, and with saddened thoughts took their leave.

COTTAGE COOKERY.

BY ESTHER COPLEY. EIGHTH ARTICLE.

HINTS ON THE ORDINARY MODES OF DRESSING MEAT.

Boiling.—The vessel in which meat is boiled should be large enough to allow the liquor to flow all round it, and to contain a sufficient quantity to last the whole time of boiling. If the lid shuts close so as to keep in all the steam, boiling heat may be kept up, with less fire, and the meat is done through in less time than if the steam be suffered to escape. For these reasons some people use a digester, which is steam tight. The water should be perfectly clean and fresh: soft water is preferable where the object is not only to boil the meat, but also to make broth—but spring water causes the meat to retain the juice. The more effectually to secure the juice, the meat may be put into boiling liquor at first, and after about three minutes' boiling, as much cold liquor may be added as will bring it to the needful heat—or it may be put, at first, into liquor of this warmth, and then allowed from half-an-hour to three-quarters to come gradually to boil. Boiling does not require so fierce a fire as roasting. It is better to allow plenty of time and keep a moderate fire. If the fire is large and fierce, the pot in which meat is boiling should be kept partly aside, or hung pretty high. Hasty boiling hardens meat: yet it should not be suffered to stop boiling, otherwise there is no certainty as to time, and the colour of the meat is injured. The scum which rises when meat is beginning to boil must be carefully removed. The time to be allowed is from a quarter-of-an-hour to twenty minutes for each pound of meat, to be reckoned for actual boiling. Meat that is fresh killed requires rather longer boiling than that which has hung a few days; and rather longer in cold weather than in hot. If a joint of meat have been frozen, it should be plunged in cold water for at least two hours before exposing it to the action of heat, otherwise it will never be done through. This remark applies to meat for roasting as well as for boiling. If meat be very salt, it is improved by removing the liquor when it has boiled a few minutes, and replacing it with fresh. Salt meat, if done rather earlier than it is wanted, is not injured by being set aside in the liquor. A string, with a loop, tied round a joint, serves to take it out by, without sticking a fork into the meat, which lets out the gravy. A tea-cupful of the liquor is to be poured into the dish for gravy.

Stewing.—On this branch of cookery ample directions have been already given which need not be repeated. The following rules from a celebrated French chemist may be stored in memory as principles to be observed, as far as circumstances admit, in application to the process generally:—

1. Have fine healthy meat, sufficiently bled (that is, free from bloody veins.)

2. Earthen or stone vessels are preferable to those of metal, because they are not so powerful conductors of heat; yet being once thoroughly heated, retain the heat for a longer time. Hence, when once brought to boiling heat, a few cinders will keep up as strong boiling as is requisite or desirable.

3. The quantity of water should be double in weight to that of the meat. On this rule a quart of water to a pound of meat, which in stewing will diminish one-half—but this is very rich—more so than most people can afford. If liquor be used in which meat has been previously boiled, less meat is required to enrich the stew.

4. A sufficient quantity of common salt to separate the bloody particles and cause them to rise in the form of scum. To be added just as the stew comes to boil.

5. Such a temperature of heat as will keep up a quick boil as long as the scum rises, which must be carefully cleared off.

6. When the scum is all removed, a lower temperature, which must be uniformly continued, and keep up a gentle simmer till all the nourishing, colouring, and flavouring properties of the meat are thoroughly combined with the liquor.

Hashing.—As hashes are made of meat already nearly done enough, a very little time should be allowed, or the meat becomes hard and impoverished. To make the gravy, clear the bones from meat and marrow, break them and boil down in

liquor that has previously boiled meat, or not having that, in water with two onions (if approved) and a bit of toasted bread. Some people like the substance of the onions—others like only the flavour.—When the whole has boiled half-an-hour or more, strain off; remove fat and scum, and return liquor to the saucepan, with or without the onions. Cut the meat in thin slices, and slantwise, each slice about the breadth of a finger, and half the length, and not thicker than the rind of pork. Let the meat be well floured, and seasoned with pepper and salt, with or without the addition of a spoonful or two of ketchup and a little cold gravy. Stir the whole into the saucepan, shaking it well to prevent sticking, and let it simmer over the fire just long enough to thicken the gravy. Lay round the dish sippets of toasted bread. To the hash of an ox heart, some of the seasoning should be added. The hash of hare should have only its own gravy and seasoning, without the addition of onions or ketchup. The hash of a calf's head requires much longer time to do. It must not be long over the fire, but may stand on the hob half-an-hour or more, either before it boils or after, that the gristly parts may be thoroughly heated. Minced veal requires neither onions nor ketchup. The meat should be chopped small, well floured—a little salt sprinkled among it. No pepper; a grate of nutmeg or lemon peel may be added. Stir to the gravy as above, and serve as soon as the gravy thickens. Sippets as for a hash.

Roasting.—The fire should be made up at first so as to last the whole time of roasting. For a large joint, this should be done nearly an hour before putting down the meat. Lay the large pieces of coal so as to secure them from falling out, and to admit a draught of air round them. By this means they will become thoroughly heated before the fire need be stirred at all. Before putting down the meat, gently raise the coals, introducing the poker between the lower bars. Throw at the back a shovel or two of cinders, or cinders and small coal mixed, and well wetted. This prevents waste of fuel, and also throws out a good heat in front. The meat-screen should now be put in front, as it helps to draw up the fire; and should itself become thoroughly heated before the meat is put down, that it may strike heat to the joint. Reflected heat never dries or scorches meat, but greatly promotes its being thoroughly and hot done. The dripping-pan is to be carefully placed, neither so near the fire as for the ashes to fall in, nor so far off as to allow the meat to drip out. If a spit is used, it should be slid in along the bones; but if the roasting be done by means of a vertical jack or a string, the hook should be put in so as to take in a bone; both to secure against tearing the meat, and suffering the juice to escape. The thickest part of the meat should be downwards, and a little below the fire, as the heat strikes downwards. All meat should be basted for some time after it is put down. Lean parts (such as pork griskin or poultry) will require basting the whole time of roasting—but large fat joints only till their own fat begins to drop out. For a large thick joint the fire should be but gradually advancing to briskness, that the meat may become thoroughly heated before it begins to brown; but for thin and tender meat (such as a neck of lamb, or for poultry) the fire, though comparatively small, should be brisk and clear from the first putting down. The time usually allowed for roasting is a quarter-of-an-hour to a pound. Most joints require rather longer. The meat should be more than half done before it is salted at all. The dripping also had better be poured off, as for pastry and similar purposes it is preferable without salt. When this is being attended to, the ashes should be cleared from the bottom bar, and if need be, the fire made up. On returning the meat, sprinkle over a little salt, to be repeated or not according to the size of the joint. When nearly done, dredge a little flour, and put the meat nearer the fire, that it may become brown. See that every part is of a fine pale brown and no part scorched. When the meat is done through, it will steam to the fire. Then pour off the dripping—but leave such as is pure gravy. Have ready a teacupful of boiling water, or broth, with which rinse round the dripping-pan, and strain it into the dish for gravy. N.B.--For rind pork the gravy must not be poured over the meat—but aside in the dish—as it would take off the crispness of the rind. Roasting performed in an American oven takes less time—supposing the

fire to be equal, say twenty minutes instead of half-an-hour—according to the size of the joint.

Broiling.—To make up a suitable fire. One hour before time have a strong coal fire, not over large: throw on the top a shovel or two of good cinders, well sifted from ashes, and slightly wetted. By the time the fire is wanted, they will have burned up and be red and clear as charcoal. Set on the gridiron, and when the bars are hot through, wipe them thoroughly clean with rag or paper, and rub with a morsel of suet or dripping, to preserve the meat from sticking. The thickness of meat for broiling should be from half-an-inch to three-quarters. If thinner, it will be dried up; if thicker, the outside will be brown before the middle is done enough. Meat, in general, should be often turned on the gridiron, and with a small pair of tongs rather than a fork, which lets out the juice. The skirts of beef should only be turned once, when half done. A little pepper and salt on each side when nearly done. Never cut the meat to try whether it is done. It may be known by the smell, and also by the steaming out of the meat. Have ready dish and plates well hot, and serve quickly. Rub a bit of butter on the meat in the dish to draw the gravy. Shalot, ketchup, or other sauce, if used at all, should be put in the dish before the meat is put there; but the more simple plan is generally preferred. Broiling is not an economical mode of cookery—but the most wholesome for invalids and young children.

Frying.—The fire should be clear and brisk—rather stronger than for broiling, but free from blaze. The pan should be sufficiently large for the meat to lie flat at the bottom, but not much larger, or there is a waste of fat. If the meat to be fried is fat, scarcely any fat need be added, merely enough to grease the bottom of the pan and prevent sticking; but dry lean meat, (such as veal cutlets), will require rather more fat, either dripping or lard, unless bacon rashers, which will answer the purpose, be fried with them. Salt fat, (*i. e.* such as has settled on the liquor of boiled salt meat) is apt to fly, and therefore not suitable for frying. The fat that has been used for frying will serve again and again for the same purpose; but is rather apt to become strong and discoloured, and therefore not so fit for pastry as the dripping of roast meat. Meat for frying should be slightly salted, peppered, and floured. When done, lay it in a hot dish; pour off the fat, and make gravy by putting in the pan half a teacupful (or more) of cold gravy, broth, or water—(a spoonful of ketchup if approved)—a bit of butter, the size of a walnut, rolled in as much flour as it will carry. Set the whole over the fire, keeping the pan well shaken. When the gravy is thick and smooth, pour it over the meat and serve directly. If onions or other seasonings are to be prepared, put them in the pan immediately after the meat is removed, adding at the same time a little pepper and salt. When they are browned, pour off the fat and make the gravy as above. For frying fish more fat is required than for any other frying, and it must perfectly boil when the fish is put in, otherwise the fish will both stick and break, and will not brown. Fish should be perfectly dry and thickly dredged with flour or coarse oatmeal; the latter takes a finer brown. The fat that has fried fish may be used many times in succession, but is not fit for any other purpose. Liver should be fried over a very moderate fire, as it is very apt to fly. Bacon should be scalded a minute or two in water in the frying-pan. When the fat begins to run and become transparent, pour off the liquor, and brown in its own fat. Eggs may be fried in the same fat. Each egg should be separately and carefully broken into a tea-cup, and gently poured into the frying-pan, that each yolk may remain unbroken in the centre of the white. When the whole of the white is set, and the underneath part of a pale brown, take up each separately with a slice. Fish, too, should be turned, and taken up with a slice.

Baking.—Meat that is to be baked should have a little salt and flour sprinkled over, a little dripping stuck over the top, and a spoonful or two of water in the tin or dish. If sent to a baker's oven, the only thing is to let him have it in good time; he is best judge when to put it in. If done at home, allow about the same time as for roasting. The baking dish or tin should be four or five inches deep, excepting for a sucking pig, for which a shallow tin is preferable, that the rind may be crisp. If potatos are baked under meat, a longer time must be al-

lowed, as the steam somewhat hinders the progress of the cooking, Amongst the things that answer for baking, may be mentioned—all kinds of hearts, which are really better baked than roasted, a pig's head, a spare-rib, or whirly-bone, hare, rabbit, and sucking-pig. These will require good bastings and frequent turning.—Geese, and ducks, should be laid first with the breast downwards, and turned when half done. Many kinds of fish, such as eel, pike, haddock, plaice, &c., with stuffing of bread crumbs seasoned, either put within or sprinkled among them. A ham is better baked than boiled, and keeps longer after dressing. It requires a moderate oven, rather slow than quick.

[A correspondent writes 'Everything said in favour of American ovens is true.' (See vol. 1, p. 206, *Fam. Econ.*) 'Add that the oven ought to be put to the fire for about twenty minutes before using it. It will thus become thoroughly heated, and quite ready for its duty—especially for bread baking.']

THE SPIDER AND THE FLY.

"Will you walk into my parlour?" said the spider to the fly;
"'Tis the prettiest little parlour that ever you did spy.
The way into my parlour is up a winding stair,
And I have many pretty things to show when you get there."
"Oh no, no!" said the little fly, "to ask me is in vain;
For who goes up your winding stair comes never down again."

"I am sure you must be weary with soaring up so high;
Will you rest upon my pretty bed?" said the spider to the fly.
"My bed has silken curtains, the sheets are fine and thin;
And if you please to rest awhile, I'll snugly tuck you in."
"Oh no, no!" said the little fly; "I've often heard it said
They never wake again who go to rest upon your bed."

"I'm sure you must be hungry," said the spider to the fly:
"Will you look into my pantry?—my pantry is close by.
There are dishes without number, and delicacies nice;
And if you please to look within, perhaps you'll take a slice."
"Oh no, no!" said the little fly; "indeed that cannot be;
I've heard what's in your pantry, and I do not want to see."

"Sweet creature!" said the spider; "you are witty, and you're wise;
How handsome are your gauzy wings! how brilliant are your eyes!
You do not know how fine your shape, how slender and how fair,
How beautiful your shining wings with colours bright and rare!
I've got a looking-glass within, upon a little shelf;
And if you please to take a look, you may behold yourself."

Alas, alas! how very soon this silly little fly,
Pleased with these flattering words, forgot the danger that was nigh,
Thinking only of her gauzy wings and of her brilliant eye!
And slowly she came nearer now, and nearer, till at last
The spider darted on his prey, and fiercely held her fast,
He dragg'd her up his winding stair, and to his dismal den,
And true it was poor little fly came never down again.

And so, my little children, who may this story read,
To idle, silly, flattering words, learn never to give heed.
Against all evil counsellors close heart and ear and eye;
And take a lesson from this tale of the spider and the fly.

AIR AND VENTILATION.

PART II.

In the former part of this subject we explained what is meant by *air*—how it acts upon the living body—and the ill effects produced by breathing it in an impure state. We now come to treat of *ventilation*, or the means by which a con-

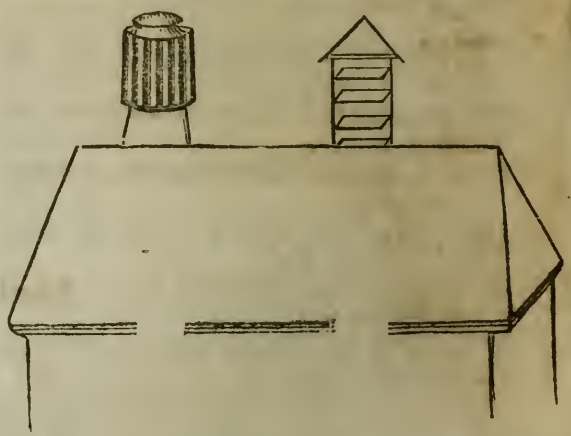
stant supply of pure air may be obtained. This can be done in two ways—naturally and artificially: by the first is meant availing ourselves of certain natural laws which exist, so to speak, ready to our hand; the second is the making use of certain mechanical methods for admitting good air, and expelling bad air from our dwellings.

Now, it is a natural law that air when warm is lighter than air at the ordinary temperatures. We see that smoke goes up a chimney, or rises upwards from a fire lit out of doors: Why is this? Because a stream of air passes through the fire, and being thus warmed, up it goes carrying the smoke with it. In cold weather we see also that breath ascends as it leaves the mouth and nostrils; and the rising of steam from the spout of a tea-kettle, must be familiar to every one. And it is owing to the continual movement occasioned by the passage of warm currents, that the atmosphere is maintained in a healthy condition. Here we have so many proofs that warm air ascends, and if we make a proper vent it will escape of itself from a room.

Except in unwholesome neighbourhoods, when we are out of doors we breathe in, or inspire pure air; but as the greater part of most persons' lives is passed in-doors, it concerns us chiefly to know how to bring pure air into houses and workshops. Generally speaking no attempt is made to get rid of bad air: people who attend crowded meetings will have observed that the windows of the building soon become covered with vapour, which, after a time, runs down in large drops: besides this a sickly suffocating smell is perceived, produced by the watery vapour of the breath, the carbonic acid gas which comes off the lungs, and the perspiration constantly thrown off from every one's skin. All these effects put together make up a sickening and poisonous atmosphere. And if pure air were prevented finding its way in from the outside, before many hours all the people in the room would certainly die. If a man happen to die while cleaning out an old well, or a cess-pool, or several persons are suffocated by the foul gas from a sewer, the event creates quite a sensation; but no one is startled by the fact that thousands of people in this country are breathing poisoned air day after day as long as they live. In addition to the causes above mentioned, by which the air is vitiated, or rendered unfit for breathing, the use of gas, oil-lamps, or candles in a room tends further to spoil it, as they all throw off carbonic acid gas.

Every person requires for healthful breathing ten cubic feet of air every minute; that is, he ought to have as much as will fill a box one foot square and ten feet long; and unless a full supply is kept up he is sure to suffer in some way. Farmers know that when corn is too thickly sown it does not thrive well, the air cannot get in among it to shake it about, to ventilate it. The same with plantations of trees; unless they are kept thinned to admit sun and air, they grow up weak and of little value. So with human beings: old or young they must all have a sufficient supply of pure air to keep their lungs properly ventilated.

There are several ways of ventilating rooms:—by openings in the ceiling; ventilators in the window, chimney or door; or by frequently opening the doors and windows. It must be remembered, however, that ventilation is not yet a perfect science; a method which answers successfully in one place will not act equally well in another. If, therefore, first experiments do not prove satisfactory, the attempt must not be given up in despair, as though ventilation were an impossibility; on the contrary, we must exert our inventive powers a little more until the object be accomplished.

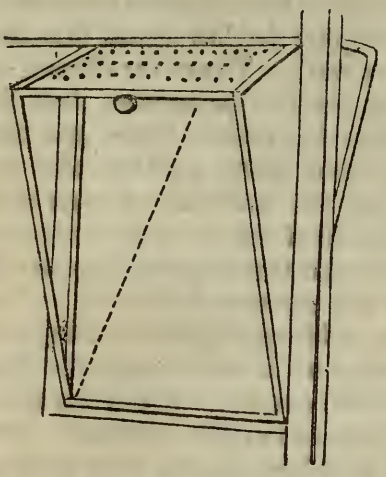


Ventilation by means of openings in the ceiling is chiefly useful for large public buildings, and school-rooms. For a room with 100 scholars in it two openings 18 inches square, or a large number of small openings, would be sufficient; the

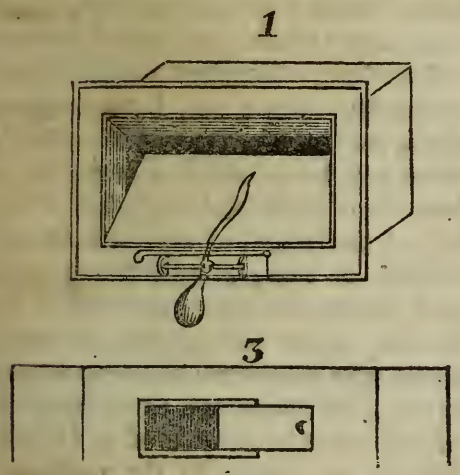
warm breathed air rises through these into the empty space above and passes away into the atmosphere by funnels or cowls in the roof, as shown by the two forms in the drawing above. If the cowls are made to turn round and round by the wind, in the same way as those fixed on chimneys, so much the better, as the motion draws a current upwards, and thereby removes the bad air before it has had time to cool and descend again into the room beneath. Besides this, every time the scholars leave the room the windows should be opened.

There are several kinds of window ventilators: one of the simplest is a wooden frame, 3 inches wide, 1 inch thick, and in length the same as the width of the win-

dow. This is to be covered with a strip of fine wire gauze; and is placed at the top of the upper sash of the window lowered to receive it, and is kept in its place by pushing the sash up again until it holds the frame securely. A supply of fresh air will then find its way into the room without causing an uncomfortable draught, as would be the case through an unprotected opening. If this plan cannot be adopted, a pane of glass may be taken out, and its place filled up with a sheet of zinc, perforated, or pierced full of small holes. Instead of zinc, a pane of perforated glass may be used, which has the advantage of not keeping out light. Another way is to fix one of the upper panes in a hinged frame shut in at the sides and top with perforated zinc, and made to slope inwards as occasion requires. According to the slope so will be the quantity of fresh air that enters the room, and this may be regulated at pleasure, as seen in the annexed figure.



The chimney ventilator is meant to be fixed in an opening cut through the brickwork, or breast of the chimney, from the room to the flue, two or three inches below the ceiling: the opening may be the size of one or two bricks, according to circumstances. Arnott's ventilator, of which a representation is here given, is self-acting. It may be described as a square metal box, made to fit a space the size of a brick (or two bricks, as above stated) and having a trap-door or valve on the side which comes into the room. This valve is



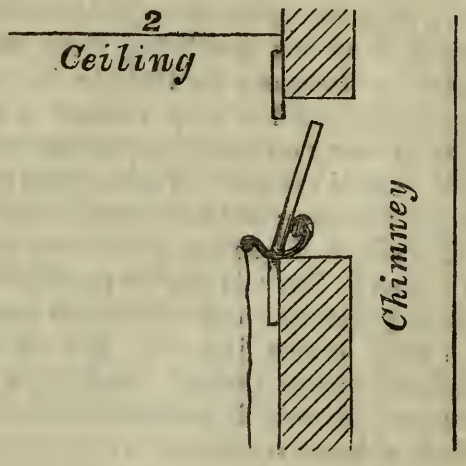


Fig. 1.—Shows Arnott's chimney ventilator with the door or valve slightly open. The cost is 7s. 6d., but any ingenious mechanic can construct one of a cheaper form.
Fig. 2.—Represents the inside of the upper part of a room, with a section of the chimney ventilator in its place. The weight it will be seen is inside, and by means of a wire fixed to the short arm, the door may be kept open at any required distance.
Fig. 3.—Is the door ventilator, as described on the next page.

balanced by a weight fastened to it by a bent arm, so as to keep it shut ; but as soon as any breathed or warm air rises to the top of the room, it pushes the valve open and passes away up the chimney with the smoke. In some cases it has been found necessary to keep the valve shut in very windy weather to prevent smoke blowing into the room, and this may be easily done by fixing a wire to the weight, and looping the lower end to a small hook in the wall. These ventilators act best when the fire is lighted, but they are serviceable at other times, and those who have used them say that they assist in keeping the walls of the room clean, as a good deal of dust which would otherwise settle upon them, passes into the chimney with the current of air.

On holding a lighted candle in the open doorway of a warm room the flame will be blown outwards at the top of the door, and inwards at the bottom. Advantage may be taken of this fact to keep up a circulation of air in the apartment, by cutting a hole through the door at the top and bottom, and covering it with perforated zinc, wire gauze, or a sliding cover of wood, (See Fig. 3 above.) The latter plan enables us to have a larger or smaller current of air passing in and out, as may be preferred.

Those persons who have neither the means nor ability to make or purchase ventilators, can, whenever they choose, keep their rooms properly ventilated by frequently opening the doors and windows. This costs nothing, and will be effectual when all other means fail. Most working-people have but one living room which makes it necessary for them to be more especially careful to keep it sweet, as they have to carry on many operations which tend to spoil the air. Washing and cooking, for instance : and how long the smell of soap-suds, or of herrings and onions clings to a room ! But this may be prevented by opening the door and window as soon as the work or meal is over. The air from without rushes through, and in a few minutes the room is purified. All rooms admit of being ventilated in this way, and it would be well to lay down a rule for the purpose and follow it steadily day after day. Thus :—open the door and window for a few minutes on first getting up in the morning ; the same after every meal, and as often between as may be desirable. In fine warm weather the window may be left open all day ; but should any one of the inmates be ill, care must be taken in admitting air. There are many men who work all day in close unhealthy workshops : we trust that after reading these remarks they will endeavour at least to breathe pure air when at home. It is perhaps in bed-rooms more than elsewhere that mischief occurs. A third part of our lives is passed in sleep, and yet the object of people generally appears to be to shut out the pure air of heaven—the breath of life—from bed-chambers, under a mistaken notion that night air is injurious. As though Providence delighted to work mischief during the hours of darkness ! Nothing of the kind : if we avoid draughts, we may breathe the night air as long as we like ; what we have to do is, to avoid breathing the air which has already been breathed over and over again. Yet this is what commonly takes place in bed-rooms. Sometimes, there are thick curtains to the windows as well as a blind ; then there are curtains round the bed, and when these are kept drawn all night, the breath of the sleepers will have poisoned the air so much, that a bird will die if hung up for a time in the upper part of the bed. It would be well if bed-curtains were quite done away with, and French bedsteads used, or others with low posts, so as to allow of a free circulation of air. Fire-places in bed-rooms should be always kept open, and not closed by a fire-board ; neither should the chimney be stopped, as it is a very useful channel of ventilation.

The door, whenever possible should be left partly open ; and by screwing on a chain, such as is now used for street doors, there will be as much security as with a door close shut and bolted. The upper half of the window also should be open an inch or two ; it will be easy to hang up a curtain so as to prevent a draught blowing upon the persons in bed. Let those, who have been hitherto accustomed to close bedrooms, try this plan, and they will at once be aware of a difference of feelings on rising in the morning ; the dull heavy sensation will be greatly relieved or disappear altogether. The close sickly smell will no longer be perceived ; and, where several children sleep in the

same room, their rest will be more refreshing and undisturbed, and they will wake in the morning cheerful and active for the duties of the day. On this point Sir James Clark observes: 'Let a mother, who has been made anxious by the sickly looks of her children, go from *pure air* into their bedroom in the morning before a door or window has been opened, and remark the state of the atmosphere—the close, oppressive, and often fœtid odour of the room—and she may cease to wonder at the pale, sickly aspect of her children. Let her pay a similar visit sometime after means have been taken, by the chimney ventilator or otherwise, to secure a full supply and continual renewal of the air in the bedroom during the night, and she will be able to account for the more healthy appearance of her children, which is sure to be the consequence of supplying them with pure air to breathe.'

It has been observed that the air of a room is spoiled and rendered unfit for breathing by smoke or flame. A single candle needs almost as much air to keep it burning, as a man requires for breathing; and two ordinary gas burners consume as much air as three men. Hence it is especially necessary in workshops, and other large rooms where many lights are kept burning, to provide for a plentiful supply of fresh air, and for the immediate escape of the foul air. One of the best ways of doing this is to have a funnel, shaped something like the mouth of a trumpet, fixed over the burner. This funnel is connected with a tube that runs across the ceiling and into the chimney, and in this way the smoke and heated air pass off immediately, and at the same time by creating a current assist materially in ventilating the apartment. Let it not be forgotten that heat in connection with a tube or other channel is the most effectual means for ventilation.

Most persons who work in factories know that such buildings are in many instances supplied with *warm* pure air. This is a great benefit in cold damp weather; and we are acquainted with several ingenious mechanics who have contrived to warm their houses in the same way. They make a square wooden tube or spout long enough to reach from the outside of the house to the fire-place; this is laid under the floor, and the inner end is brought into a hollow space or chamber made at the back of the fire. This chamber becomes hot, and consequently air rushes into it from the outside, and after being heated passes by another tube into the room at one side of the mantel-piece; thus, without any additional fire, a greater amount of warmth is obtained. To make this plan answer, the arrangements must be very carefully contrived. But those persons who live in manufacturing districts, if they will only make use of their powers of observation, may always find models in their neighbourhood.

We have thus considered the subject in a way most consistent with the nature of our work; we have explained methods which admit of being practically applied with but little expense or difficulty; and in bringing our remarks to a close, we may direct attention to one or two leading principles. *First:* The upper part of a room (supposing it to be badly ventilated, or not ventilated at all) is always filled with foul air, which keeps on increasing until it is breathed by persons who are in the room to the prejudice of their health. *Second:* The openings for the escape of this foul air must be made as near the ceiling as possible. *Third:* Fresh air finds its way into a room at the lower part; and if openings for ventilation are made in the upper part, a stream of air fit for breathing is always passing through the room. *Fourth:* By opening windows and doors, the air of a room may be purified as many times a day as may be desired.

Now this last suggestion is one which even the poorest person may adopt; and while so ready a method of ventilation may be practised, while such a cheap means for promoting health offers itself to every one, we trust that none—particularly readers of the *Family Economist*—will neglect to adopt it.

POPULAR FAILINGS AND THEIR REMEDY.

It is now 160 years since Defoe wrote:—'We are the most lazy-diligent people in Europe, and the most prone to gratifying the senses.' The elements of the national

character are the same now as then—the accidents only are changed. Our people are not so brutal in their excesses, nor so beastly in their vices, nor so gross in their pleasures now as they were then. A great change has taken place in the demeanour and diversions of the people since the beginning of the present century—perhaps even a greater within the last ten years. There is not a judge, or a magistrate, or a physician, who does not observe this. But still, the English mechanic is now, as he was then, a lazy-diligent man. With, perhaps, the greatest skill in special occupation of all his compeers, and the greatest power of occasional exertion, there is no one who mingles so much laziness with the same diligence, and deducts so much from the earnings of his industry for the gratification of his senses. Foreign masters and employers have found this to be the case invariably. Whether in Belgium, or in Switzerland, or in France, there has too generally been a striking contrast between the behaviour of the native workman and his English auxiliary. Superior to all in manual skill and specialité of his craft, the English workman has often been degraded below his companions by his intemperance. Despising the social refinements to which he was a stranger, he also disregarded the prudential maxims which he had been taught. Though he earned higher wages than others he saved less; and when the period of his employment abroad had expired, he returned home to starve, to beg, and to grumble. The general report of the Poor Law Commissioners, and the master manufacturers in the north, is to the same effect. Persons who have seen the condition, or visited the homes of the operatives only in a season of suffering and want, cannot imagine the extravagance and the indulgence which characterize a season of abundant work and high wages; while they who have seen the latter might easily augur the former.

Mr. D'Israeli well described agitation as 'the new profession' of the age. Unfortunately for all persons, it has been a gainful and attractive trade. But an evil may be improved into a good. Peripatetic declamations against classes and institutions might easily be superseded by peripatetic lectures on the laws of prices, labour, and wages. They would not be so popular at first as the appeals to passion and faction which they succeeded. But in the end they would make their way with the more intelligent and thoughtful portion of the labouring community. These men—taught by bitter experience the worthlessness of political quackeries and the costliness of political agitation—would follow the promptings of their strong common sense, and set their own wits to work, and bring their own resolutions to bear on the relief of those miseries, which they have, hitherto, been content with deploring, instead of anticipating. They would soon ascertain the invariable law which regulates the periods of full work, and no work, and would learn to save in the good days against the evil days, and would forbear against that ill-timed extravagance which has filched from themselves and their offspring a decent maintenance in the gloomy periods of distress, and thus would afford a partial solution of that vexing problem which is proposed by the co-existence of enormous wealth and immense suffering in the same towns and streets of England. A lesson of this sort, elaborated from theory into practice, would itself be the nation's cheapest defence against the temerity of ignorant and the violence of wicked men.—*Times, Sept.* 1848.

SCHOOL GARDENS.

If the following plan, detailed in the *Midland Florist*, were adopted in all parts of the country, there is good reason to believe that a love of order and industry would be promoted: we consider it well worthy of imitation. It is stated that 'In the immediate neighbourhood of Nottingham, is an extraordinary number of small gardens, occupied and cultivated by all grades of society; and with a most laudable and praiseworthy feeling, the friends connected with the High-pavement Chapel Boys' Sunday School, have purchased two of these inclosures, in each of which is a commodious summer-house. One of these gardens is culti-

vated by the elder boys, the other by the juniors. Each garden is subdivided into smaller allotments, which are assigned to their respective tenants, boys from ten to fourteen years old, who cultivate and crop them according to their own fancy, a small portion of each being devoted to flowers. The diligence and ability displayed by these youthful gardeners is really astonishing. We have inspected their crops during several past summers, and with truth can say we were highly delighted with them. The onions, lettuce, celery, carrots, potatos, &c., were excellent, and would vie with the productions of older and more experienced cultivators. Prize gooseberries are also grown, and this year, the crops of London, Companion, Gunner, Eagle, &c., were amongst the best we have ever seen, either at Nottingham or elsewhere; in fact, these boys always endeavour to obtain, either of seeds or plants, the best varieties possible. In connection with these gardens, and to excite emulation, a vegetable and flower show is instituted. This is held in the school-rooms, at Nottingham, and prizes are given for the best productions in vegetables, as well as for stands of pansies, verbenas, collections of annual and perennial flowers, and nosegays, or *bouquets*, as they are called by some, but we fancy our readers will like the old English name best. These exhibitions of youthful skill and industry are well attended.'

LYING.

Lying is a mean and cowardly quality, and altogether unbecoming a person of honour. Aristotle lays it down for a maxim, that a brave man is clear in his discourse, and keeps close to the truth; and Plutarch calls lying the vice of a slave.

Lying in discourse is a disagreement between the speech and the mind of the speaker, when one thing is declared and another meant, and words are no image of thoughts. Hence it will follow, that he who mistakes a falsity for truth is no liar in repeating his judgment; and, on the other side, he that relates a matter which he believes to be false is guilty of lying, though he speaks the truth. A lie is to be measured by the conscience of him that speaks, and not by the truth of the proposition.

Lying is a breach of the articles of social commerce, and an invasion upon the fundamental rights of society.

Lying has a ruinous tendency; it strikes a damp upon business and pleasure, and dissolves the cement of society. Like gunpowder, it is all noise and smoke; it darkens the air, disturbs the sight, and blows up as far as it reaches. Nobody can close with a liar: there is danger in the correspondence; and more than that, we naturally hate those who make it their business to deceive us. Were lying universal, it would destroy the credit of books and records, make the past ages insignificant, and almost confine our knowledge to our five senses. We must travel by the compass or by the stars; forsaking the way would only misguide us.—*Pearls of Great Price.*

GOOD ADVICE.

Good men also should learn to be attentive to their health, and keep the body as much as possible the fit medium of the mind. A man may be a good performer; but what can he do with a disordered instrument? The inhabitant may have good eyes; but how can he see accurately through a soiled window. Keep, therefore, the glass clear, and the organ in tune. We do not wish you to be finical and fanciful;—to live in the shop of an apothecary, or to have a medical attendant always dangling at your heels, but be soberly and prudently attentive to the body. Rise early. Take proper exercise. Beware of sloth. Observe and avoid whatever disagrees with your system. Never overburden nature. Be moderate in your table indulgences. Let not appetite bemire and clog the mind. Medical authority will tell you, that where one disorder arises from deficiency, a thousand spring from repletion; and that the board slays far more than the sword.—*Rev. W. Jay.*

GARDENING AND RURAL AFFAIRS.

ON THE CULTIVATION OF THE GOOSEBERRY.

The Gooseberry is raised from cuttings, or from seed, and sometimes from suckers; but this last is not a good way, as bushes raised in this manner are more liable to throw out suckers than those which are raised from cuttings or seed.

The best time for planting cuttings is about Michaelmas; they should be taken from the strongest and cleanest shoots, and from twelve to eighteen inches in length. Plant them on an east or north border, at the distance of one foot from row to row, leaving them about eight or ten inches above ground. By planting at this distance, you will be able to hoe and keep them clear of weeds. Water them frequently in dry weather during the spring.

The Method of Planting.—The young trees are to be planted in rows, from eight to ten feet apart, and six feet from plant to plant in the rows. In that case I advise pruning them in the beginning of October, and the ground between may be planted with coleworts or beans for a spring crop; by so doing, there will be no occasion to tread over the ground and hurt the coleworts in pruning the bushes, for, before the gooseberries begin to shoot, the coleworts will be all cleared away. After this time (or before, if you find it convenient) lay a good coat of rotten dung on the ground, then dig it and plant early potatos, but not so near to the gooseberries as to hurt them.

The roots of gooseberry trees should always be kept clear to admit the sun and air. In small gardens I would recommend planting them in a place by themselves, at the distance of six feet between the rows, and four feet from plant to plant, or you may plant them round the edges of the beds, about three feet from the path, you will then have the ground clear for cropping, and by setting one foot on the border, will be able to gather the gooseberries without injuring the crop.

As gooseberries like a rich soil, they should be manured every year, or at least have a good coat of dung once in two years.

Never plant them under the shade of other trees, as it will injure the flavour of the fruit.

To prune Gooseberry-bushes.—It is too common a practice, in pruning gooseberries, to let them branch out with great naked stems, suffering them to remain in that state for years. When that is the case, they should be cut down near to the ground in the winter pruning, this will make them throw out fine strong healthy shoots, which will bear fruit the second year. Gooseberry-bushes, in general, bear their fruit on the second year's wood. Care should be taken, in summer, to keep the middle of the bush clear, to admit a free air into them, leaving the finest and strongest shoots from six to ten inches distant from each other, this will help to ripen and harden the wood. It is a practice with some to shorten the shoots in the autumn or winter pruning, this should be always near to a wood-bud, which may be known by its being single, whereas fruit-buds are in clusters. The shoots may be shortened to eight or ten inches, according to their strength. Some leave them at full length for three or four years, thinning out those that are superfluous. Always leave a proper number to be trained up between the full-length shoots, to succeed them when they cease bearing, then cut the old ones down to the young ones that are to succeed them. By these means you will always keep the bushes in a constant state of bearing.

Gooseberries are well worth paying attention to, as they supply the table so amply till the wall-fruit comes in.

Considerable additions have been made to the varieties of late years, owing to the great attention paid to their cultivation by gardeners and others in various parts of the country.

DIRECTIONS TO BEE-KEEPERS FOR MAY.

Our instructions for this month will be to those who keep bees in common hives for the purpose of swarming; and to those who have adopted the method of preventing swarming in order to procure honey.

Bees usually swarm in the months of May and June, sometimes a little earlier or later. The most valuable swarms are those which come at the end of this, or the beginning of next month. The earlier part of May is often cold and wet, the bees are hindered from honey gathering, and unless fed, would decrease in strength very much, and perhaps eventually perish.

The chief indication of swarming being about to take place, is, the gathering of the bees at the entrance of the hive, where they cling to each other, and hang in a cluster under the board. This clustering is evidently the natural instinct of the bees, which leads them to gather together in the same manner as when they are making comb within the hive, and as the hive is now quite full, they are under the necessity of remaining in idleness until the time the queen may be ready to accompany them, to form a new colony. Sometimes they will hang out for a fortnight, or even a month before they swarm. That it is an act of *necessity*, not of *choice*, is evident from the fact, that they often begin

to construct their combs under the hive-board.

It would be a pity to allow these bees to be thus idle in a fine season, when they are quite willing to work; they will lay up a small store of honey for you, if you will provide a way for them. For this purpose, if you have a hole at the top of the hive, take out the bung which closes it, and place upon it a small hive or cap, which will contain about eight or ten lbs. There should be a little window in this small hive, so that you may be able to see when it is full. Very often such a cap will be filled in a week, and the bees will not be prevented from swarming one day later than they would have done if they had all been hanging out in idleness. If the cap be *too large*, the queen will very likely go into it, and when you remove it you will find maggots and young brood, instead of only pure virgin honey. (To take off the cap when filled, see *Fam. Econ.* vol. 1, p. 70.)

Clustering is not the only sign of an approaching swarm. The appearance of the drones about the middle of the day; a kind of hum, and a shrill piping sound in the hive in the evening; and the restlessness of the bees are also indications; and generally when on a fine morning very few bees are at work, while on the day before all was activity and bustle, it is pretty certain that the swarm will rise in the course of the day. But sometimes they swarm without any notice, so it is better to have some one to watch on fine days from about nine in the morning, till three o'clock, that it may be known immediately when a swarm has gone off.

No one need be afraid of bees when they swarm; they appear to be fearful themselves at that time, and are usually so very peaceable, that we have often taken up a handful without being stung. But as all persons have not courage, it is much safer to have gloves on, and the head and neck covered with a hood of gauze or crape, or thin linen; and thus protected, any one may venture to hive bees with impunity. Throwing dust or water among them during their flight is often injurious; and *music!* from your warming-pan and door-key, or your tongs and shovel, is of no manner of use, and may hinder you from attending to something necessary to be done. If possible get a person who is accustomed to it, to hive the swarm, but if not, attend to these directions.

If the swarm is to be put in a straw hive, let it be a *new one*. Lose no time as soon as your swarm is settled, or they may be off again, and you will probably *lose* them. Spread a table-cloth, or a sheet on the ground under the swarm. Place the hive-board upon it. Let one person hold the hive turned upside down close under the swarm, while another gives the bough a sudden shake, so as to jerk off the whole mass of bees into the hive, which must then be turned down upon the cloth, one edge being a little raised by a stone or bit of wood, that the bees may not be crushed. If the swarm be hanging upon a small branch, it may be cut off with a sharp knife or a pair of shears, and let fall into the hive. When on the thick branch of a tree, there will be more difficulty. In this case, hold the hive under as before, and sweep the bees into it as carefully as possible with a soft hand-brush. If the queen be in, the bees will soon follow. Should it happen that they swarm high up on a tree, these directions must be followed as nearly as possible by persons mounted on ladders.

This swarming is necessary in order to increase or keep up your stocks, but of course it should only be allowed from hives kept on purpose, as the new system is to prevent swarming, in order to procure a plentiful supply of honey from the increased population.

Never on any account hive a *cast*, with the intention of keeping it by itself through the winter, or for taking up in the autumn, rather return it to the parent hive (see pp. 86, 87, vol. 1,) or unite it to one of the earlier swarms, so as to make a strong stock. Unless the season be unusually favourable, casts never do any good, while the old stock is often so weakened by the loss, as to be almost worthless in the autumn, or for preserving through the winter.

If unfavourable weather ensue shortly after the swarm be hived, *feed the bees*, it will strengthen them, and prove a gain to you in the end. (p. 104, vol. 1.)

The entrance into the hive should now be enlarged to its full size, that the bees may have abundant room in the busy season of honey gathering. Side-boxes may be opened; they need not be ventilated for two or three days until the bees have well taken to them, and begun to form comb, after this, however, great care must be taken to ventilate well, in order to keep them cool. Give plenty of water, but so as the bees may not drown themselves. Shade the hives from the burning sun, which makes them so hot that the bees can scarcely work, and sometimes melts the combs, causing them to fall down and smother the bees. Feeding old stocks need not be continued, unless the weather be unusually unpropitious.

THE SPADE.—After all manures have been considered, the spade is perhaps the greatest of all fertilizers. On some of the poorest, the thinnest-skinned, lands of Surrey, the cottagers by deep trenching of the naturally barren soil, succeed in rendering it productive of all the common vegetables, such as potatos, cabbages, peas, carrots, and even beans.—*C. W. Johnson.*

VARIETIES.

Forgiveness, a Turkish Parable.—Every man has two angels, one on his right shoulder, and one on his left. When he does anything good, the angel on his right shoulder writes it down and seals it, because what is once well done, is done for ever. When he does evil, the angel upon his left shoulder marks it down, but does not seal it. He waits till midnight: if before that time the wearer bows down his head and exclaims, 'Gracious Allah, I have sinned, forgive me,' the angel rubs that out, but if not, at midnight he seals it; and the angel upon the right shoulder weeps.

Light of the Stars.—Dr. Wollaston once calculated that twenty thousand millions of such stars as Sirius, the brightest of the fixed stars, would be required to give as much light as comes to us from the sun. He proved also that, the brightest full moon rays are 801·072 times weaker than sunlight.

Fashion a Tyrant.—She makes people sit up at night, when they ought to be in bed, and keeps them in bed in the morning when they ought to be up and doing. She makes her votaries visit when they would rather stay at home, eat when they are not hungry, and drink when they are not thirsty. She invades their pleasures and interrupts their business, she compels them to dress gaily, either upon their own property, or that of others; she makes them through life seek rest on a couch of anxiety, and leaves them in the hour of desolation on a bed of thorns.

Fecundity of Insects.—Some silkworms lay from 1000 to 2000 eggs; the wasp deposits 3000; the ant from 4000 to 5000. The queen bee lays between 5000 and 6000 eggs, according to Burmeister; but Kirby and Spence state that in one season the number may amount to 40,000 or 50,000. But, above all, the white ant (*Termes fatalis*) produces 86,400 eggs each day, which, continuing for a lunar month, gives the astonishing number of 2,419,000, a number far exceeding that produced by any known animal.—*Poetry of Science.*

Schools and Soldiers.—The population of the State of New York is about 3,000,000. In 1846, the number of children attending the common schools through the State was 748,387. There are 11,052 school districts, and 9,716 school-houses. The average monthly pay to teachers in 1848, was nearly 16 dollars for males, and 7 dollars for females. There are 1,500,000 volumes altogether in the school libraries. Besides these, there are 1,704 private schools in the State, and schools for the children of Negroes and Indians. The total number of soldiers in the United States' army is, 8,866. The ten regiments raised for the Mexican war, were disbanded after the cessation of hostilities.

Railway Facts.—The capital invested in British Railways from 1801 to 1848, amounts to £320,000,000; and for the various undertakings, 1071 acts of parliament were granted. In one week of September 1848, there were carried on the Eastern Counties Railway:—529 beasts; 73 calves, 5598 sheep, 865 pigs, 17,711 sacks of grain and malt, 6578 sacks of flour, 197 tons of meat, 37 tons of poultry, 332 tons of fish, 643 tons of fruit and vegetables, 229 tons of beer, 73 tons of wine and spirits, 19,608 quarts of milk, 59 cwts of bread.

The number of individuals employed on the London and North Western Railway—from secretaries down to labourers, is 10,263—of horses 612; of vans 253. The goods collected and delivered on account of the company, by Messrs. Pickford, in one year (ending June 1848,) was 273,336 tons, or more than 841 tons a-day.—There are 5416 pieces in a locomotive engine; the cost of one of the largest size is £2500.

Motions of the Earth.—The earth travels round the sun at the rate of upwards of 68,000 miles in an hour, and in the same time turns more than 1000 miles on its own axis.—And in one year the whole solar system moves over a distance of 33,550,000 miles.

Duties.—Whosoever neglects his duty to himself, his neighbours, or his God, halts in something that should make life commendable. For ourselves we need order; for our neighbour, charity; and for our God, our reverence and humility; and these are so certainly linked one to another as he that lives orderly cannot but be respectable both to God and the world.—*Feltham.*

Gutta Percha Tubing.—This tubing is such an extraordinary conductor of sound, that its value, not only to deaf persons, but to the public generally, will speedily be appreciated. It has already been fitted up in dwelling houses, in place of bells. As speaking tubes for giving and receiving messages in mines, railway stations, prisons, workhouses, hotels, and all large establishments, it is invaluable.—*Mechanics' Magazine.*

Conversation.—Discretion in speech is more than eloquence, and to speak agreeably, than to speak good words, or in good order. To use many circumstances before one comes to the matter is troublesome, and to use none, is blunt.—*Lady Gethin.*

Love.—To love well, a lover must have a natural tenderness before he loves; but this rarely happens: with most, a delicate sensibility gives all the punishments and pleasures of love. That love is most perfect that has least of self-interest in it. When love is weaker than reason it is no perfect love.—*Ib.*

HOME EDUCATION.

SECOND PART.

It would be worth the trouble of a long and painful pilgrimage to fall in, at length, with a family in which the present tense of the indicative mood of a certain verb active, were in daily, full, and practical operation. Thus:—

'I love. Thou lovest. He and she loves.
We love. Ye love. They love.'

This, however, might be too much to expect; but some considerable advances towards such a state of things may surely be hoped for where a right direction is given to the best instincts of humanity. Plainly, if the moral training of children must begin with the subjection of the will, it should be accompanied, step by step, with the education, literally the *leading forth*, of the affections.

It may be pleaded that where self-will, or self-love, is effectually subdued, the exercise of the more genial affections will be free and spontaneous. Yes: *where it is so.* But let us again remark, this subjection cannot take place unless the almost omnipotence of love be called in; and at the best, selfishness is so natural to man, that the complete education of the will, must be the work of time.

But how shall we teach children to *love?* Happily, in the first instance, the instinct is implanted; it is for parents to cultivate and direct it aright. In this matter, however, 'line upon line and precept upon precept' will avail but little. Example will be the best and most efficient teacher, and circumstances should be left to call the principle into active exercise. You cannot force your children to love you; but you can attract them to do so. You cannot make them love one another; but you can cultivate in them all such qualities as will draw each to each in the bonds of affection.

We lay little stress upon the modes by which brothers and sisters are sometimes taught—or attempted to be taught—to love one another. To call each other by the pretty names of 'dear,' 'love,' 'darling,' &c.; to kiss each other every time they meet or part,—may be love-*like* and proper; but parents should be well aware that all this may be practised daily without one atom of genuine affection. We have seen families in which these 'outward and visible signs' of brotherly and sisterly fondness were more than sufficiently obvious; but where, quite as obviously, there was little of its 'inward and spiritual grace.' The efforts of parents should therefore be more urgently directed to the encouragement in each child of those habits and tempers which are 'lovely and of good report,' rather than to their merely external show. The reality will always exhibit itself in suitable forms: the forms may be observed without the reality.

But if brotherly love cannot be forcibly excited, practical unkindness may be, and ought to be checked in its first buddings; and where, in the older and stronger, a tendency to domineer and tyrannize over the weaker is observed, it ought to be assiduously watched and promptly remedied. Unhappily, even under the best moral training, there are some dispositions which, in this particular, seem almost incurable,—*almost*, but not quite.

Sir Walter Scott, in his autobiography, mentions as one of the severest trials of his childhood that he had to submit to the caprice and tyranny of an elder brother: 'and such,' he adds, 'was the agony which I internally experienced, that I have guarded against nothing more in the education of my own family, than against their acquiring habits of self-willed caprice and domination.'——'And so will I,—witness my hand,' is written in the margin of the life of Scott, from which this extract is taken—written probably by one who had felt the weight of *fraternal tyranny.* Would that every parent were to adopt the same determination, and carry it out most energetically. Half the miseries of countless children would then be prevented; and the families which now present constant scenes of disgraceful strife, would be homes of peace and quietness.

The affection of children to their parents is best and most naturally shown by *confidence.* Obedience may be enforced; confidence, never. But it may be won; and, for each one's sake, it is worth the winning. To be a child among his children is one of the finest qualifications of a wise and good parent. No fear,

in this case, that familiarity will breed contempt. We could almost say that no sacrifices are too great or costly to attain this object, only that, in reality, no sacrifices are required.

'Father is coming!' sometimes whispered one brother to another, as they played together; and their feeling was that of timidity and embarrassment—almost of dread—as their father came near. At times, their toys were put out of sight; and generally they discontinued their active sports until the unpleasant visitation was over. Why was this? The father was a conscientiously kind one; and the boys knew it. On the other hand, the boys were properly amusing themselves, and the father knew it. The reason then is plain. There was a want of confidence. Some necessary ingredient had been wanting in the moral education of those children, which should have led them at once and instinctively to know that their parent would have rejoiced to see them happy, and to say,—'Father, father, do come and play with us.'

Whenever free and child-like confidence is checked or depressed, the result is bad. The studied concealment of things indifferent, will inevitably lead to that of things vicious. Multitudes of instances might be brought forward to prove the truth of this; but one especially strikes us as a case in point. The page of biography does not present us with a finer specimen of benevolent humanity than John Howard. Nor probably did ever a more conscientious parent exist than he, nor one who could be more solicitous for the right education of his child. In one particular only, does there seem to have been a failure; but there was in one:—he did not obtain, or obtaining he did not retain, the full and entire confidence of his son. That son revered him as only a good man can be revered; but the trustful repose of implicit filial love was not in him. If we comprehend rightly the feelings of young Howard, he looked up to his father as an *awfully* excellent man, rather than as a friend who could sympathize with the feelings of youth. By-and-bye, the confidence which the father had not, was reposed in a base but plausible rascal, who led the youth from one degree of abominable vice to another, until his ruin was complete. We dare not, as some have done, impute blame here to the noble philanthropist; but we do esteem it his misfortune that he had failed to secure for his son a bosom friend in himself. The moral education of a child cannot be reckoned complete, or even far advanced, until this be accomplished.

It is bad for children to have any secrets apart from their parents; and it is miserably bad when one parent encourages or prescribes concealment from the other. One lesson of this kind is calculated to undo the work of months or years.

Much more might be written about the cultivation of the affections, and the subject is an inviting one: but another important matter beckons us on.

The home education of children would be essentially and wretchedly deficient, in which the 'leading forth' of the moral perceptions should be confined to the particulars already mentioned. There are such things as Truth and Honesty,—and these, not mere abstract ideas, but beautiful realities. There are also such qualities as Modesty, Perseverance, Sobriety, Fortitude, and many others, in the love and practice of which a parent will do well to train his children, so as to develope, as much as possible, a second nature within him.

Here again it is necessary to say that little good is likely to be effected by words only, however excellent in themselves, or however well put together. If parents wish to educate their children in the reverence of Truth and Honesty, they themselves must be honest and true. Children are quicker in nothing than in perceiving any discrepancy between theory and practice.

Greatly is it to be desired that parents who wish well for their children, and who think that they do well towards them, would fully consider this. How *can* those who are the constant, or the frequent victims of deception, learn to understand aright the sacred character of truth? or how are *they* to receive right principles of honesty who are incessantly cheated?

It should be remembered, also, that it is difficult, in the first instance, to make a child really understand precisely what is meant by truth and honesty. It is not every departure from veracity in a child just learning to speak, or every misappropriation of property into which he may

slide, that should be branded with the opprobrious name of falsehood or theft. The culprit may be clear of any bad intention, and ignorant of any fault, although the fact may be clearly proved. Caution, discrimination, and much kindness, are therefore requisite in correcting these evident faults, while advantage should be taken to inform the understanding and quicken the conscience, as to the broad difference between right and wrong.

With those children who are the most sensible of this difference, and on whom the guilt of falsehood has been most firmly impressed, a frequent incentive to its committal is fear. An active and unlucky urchin meets with some trifling accident, or perhaps perpetrates some wanton mischief. Immediately his little heart beats quick with dread of consequences. He knows that, if found out, he will be put to bodily pain. This his nature shrinks from, and he seeks means to avoid it. If he tell a lie, he may escape punishment; and accordingly, he lies. This is sad; but what else can be expected? We do not look for the heroism of martyrs in our children, and we ought not to look for it. Now all this temptation and wrong-doing could and should be prevented. We would have every parent lay down as an absolute rule for himself or herself,—*Never* severely to punish a child for a fault freely and frankly confessed. We may say to our children a hundred times—

'Dare to be true: nothing can need a lie;'

but this is not enough: we ought to help them to be true. It is possible that this plan would sometimes be inconvenient; but what inconveniences would it not be worth, to teach a child the paramount virtue of truth?

Has it ever happened to the reader to be wrongfully accused of some evil deed? We could almost wish so, for the sake of our next caution, which we will introduce by a fact.

"John," said the mother; "you tore this book."

"No, indeed mother, I did not," replied the little fellow.

"You naughty, wicked child, how dare you tell me such a story? You know you tore it."

John still stoutly denied the fault.

"Go to your room directly, you naughty boy; and if you persist in your falsehood, you shall be whipped."

So the 'naughty boy' went to his room, and when there, he argued thus within himself:—"I did not tear the book, though my mother thinks I did; but if I continue to declare my innocence, I shall be punished. If I tell a lie, I shall escape. I must therefore tell the lie."

And he told the lie—the *first* he remembers to have told,—and he did escape the threatened whipping, though he was lectured for lying. It was a lesson he never forgot; but it was a bad lesson. Neither did he ever forget the injustice he had experienced. Our caution, then, is this:—Never peremptorily accuse a child of a fault unless you can prove it to have been committed by him, and always give him credit for speaking the truth until you absolutely and unmistakeably know that he utters a falsehood. Moreover, never tell a child that you do not believe him, in a matter that admits of doubt. After all, you may be mistaken, and then an injustice and injury is inflicted which can never be undone.

We mentioned Industry, Perseverance, Sobriety, and Fortitude, as among the qualities which should enter into the moral training of children. Unless these qualities be possessed by them, they have no right to look forward to anything in life but disappointment, poverty, and contempt. But how to impress this upon them? We again say, most certainly not merely or mainly by serious and set lectures—by telling them how naughty it is to be idle, or by driving them to some employment, suitable or unsuitable, so that their hands may but be employed.

It is needful, first of all, that they see the spirit of these good qualities actively carried out at home. Then it may be desirable, occasionally, to point to examples in the conduct of others, either as incitements or warnings. This, however, requires judicious handling and great caution, lest a censorious spirit be encouraged. A more sure and efficacious way, is, without a word said in praise of such qualities as we have mentioned,—to encourage their constant practice by every means in the parents' power. Take, for instance, Industry and Perseverance. Now, we are very far from thinking that either boys or girls should be set to *work*

directly they are capable of moving their limbs, or of holding a tool or dusting-brush. But the fact is, a healthy child will be active if let alone, and not thwarted: and we believe that as much industry and perseverance may be exercised in play as in work. There cannot be a more mistaken idea than that all child's play is idleness. It is the natural exercise of mental and bodily vigour; and nothing tells so well for the future character of any child, than the fact of his being earnest and persevering in play. Encourage your children, then, to play heartily and perseveringly. Play with them; it will not be time misspent. If they play well in childhood and youth, no fear but they will work well in manhood or womanhood.

"But they make such a mess and litter in the house,—and such a noise. There's George was for a whole week doing nothing but chip, chip, and knock, knock, at a great chump of wood, to make a boat of, as he called it,—cutting his fingers, too, every day of his life, till I could not bear it any longer."

"And what did you do?"

"Do? why I made him sweep up his chips, and I threw the wood into the fire, and threatened to take away his knife if he did so any more."

Very true;—this is just the way: and then parents wonder why their children are listless and idle and fretful. Here was the finest opportunity thrown away, of teaching George to be industrious and persevering, and to bear pain and disappointment. This is not the way to 'take care of the child.'

But our remarks on the moral education of children at home have taken up more space than we intended; and yet, compared with the importance of the subject, little indeed has been said. Numberless topics and illustrations present themselves invitingly; but we must be content to add one—only one other remark. A home education will be efficient just in proportion as children are made *happy* under it. A right education has a tendency indefinitely to enlarge the capacity for happiness; and those are the most successful trainers of the young, whether parents or teachers, who, while conscientiously and firmly carrying out and enforcing the great principles of moral restraint and moral obligation, are not happy themselves, unless they are surrounded with cheerful and happy learners.

A CHAPTER ABOUT COFFEE.

What is commonly called coffee is the fruit or berry of a tree named by botanists *Caffea Arabica*, a native of Africa, in which country it has been known for ages. From Africa it passed into Arabia, about the middle of the fifteenth century (1450), by means, it is said, of a Mahometan doctor, who had seen the natives of other countries through which he had travelled, drink a decoction of bruised coffee berries. Finding himself indisposed after his return home, he thought he would try the effect of coffee; and thus proved and made known its beneficial effects in removing headache, enlivening the spirits, and preventing sleepiness. Another account says that the first knowledge of it was obtained by the prior of a monastery: he had observed that wild goats on the hills became very frisky and lively after browsing upon coffee plants, and he administered a decoction of the same to his monks, to keep them awake during their devotional services. The first of these statements is most likely the true one: however, the use of coffee spread, but not without opposition, over Arabia, Syria, and to Constantinople, where it grew rapidly into favour. At one time the Turkish government forbade the use of it on religious grounds, but people had grown so fond of the new beverage as to drink large quantities privately; it was offered to visitors in every house, and eventually the opposition was withdrawn.

About 200 years after it first became known to the Arabs, coffee made its way into France, and was introduced privately into Paris in 1657. In 1669 it became public: three years later a coffee-house was opened by an Armenian, and so well was it supported by the Parisians, that before long 300 others were established in different parts of the city. The berry was brought to London in 1652, by a merchant whose Greek servant was acquainted with

the method of roasting and preparing it. Coffee-houses were opened, and many were the praises spoken of the pleasant liquor. On the other hand, as is always the case when a new thing is introduced to public notice, there was a host of objections, and numerous pamphlets were written, setting forth the injurious consequences of drinking coffee. But a popular liking is not easily diverted ; coffee-houses multiplied in London, although grand juries and the government tried to put them down. In 1660, by an act of Charles II., a tax of fourpence was imposed on every gallon of coffee sold, and every vendor of the article was obliged to take out a license. In 1675 all the coffee-houses in London were closed by proclamation, as being the resort of evil-minded persons and seditionaries ; yet, as had been the case 100 years earlier at Constantinople, the people were soon after left to drink coffee when and where they pleased.

Up to this period, and for some time after, all the coffee consumed in Europe was brought from Arabia, where it grew, and still grows in greater perfection than in any other part of the world. The trade was very profitable to the Arabs ; they prohibited the exportation of plants from Yemen under severe penalties, and it was said that they destroyed the germinating principle of the berries so as to prevent foreigners raising a crop from seed. But about 1680, Witsen, burgomaster of Amsterdam, persuaded the governor of Java to procure some coffee-berries from Arabia Felix ; these were sown at Batavia, and in 1690 one of the plants thus raised was sent to Holland, where it was planted in the botanic garden at Leyden. It flourished, bore fruit, and from the ripened seed other plants were propagated, from which the Dutch colony of Surinam was supplied. In 1714 a young tree was sent from Amsterdam as a present to Louis XIV., and preserved in the Jardin des Plantes at Paris, and this tree, it is said, furnished plants for the French colonies in South America and the West Indies. It appears somewhat singular that tropical countries, the natural abode of the coffee tree, should have been indebted to Europe for it. Yet so it was : and from this small beginning has grown up a most important branch of our foreign trade, spreading into several countries. About 120 years ago, two East India ships calling at Mocha brought all the coffee needed in England : now it is imported from Brazil, Central America, East and West Indies, Ceylon, Manilla, and the Mauritius, by millions of pounds every year.

There are about twenty varieties of the coffee tree, it will grow in all tropical countries, and in northerly climates when properly sheltered. Left to itself, it attains a height of from eight to fifteen feet, but in cultivated plantations it is generally kept down to about five feet for convenience of gathering and collecting the berries. It grows straight, with slender drooping branches, and light evergreen leaves, something like those of the bay or Portuguese laurel, and produces white flowers of delicious scent, similar to the jasmine, to which cause it doubtless owes the name sometimes given to it—jasmine of Arabia. Nothing can be more beautiful than a coffee plantation during the flowering, which however lasts for no more than two days. The flowers are succeeded by green cherry-shaped berries, which become red, and purple when ripe, and contain two seeds or beans, oval in shape and flat on one side : these are the coffee-berries sold in the shops. The ripe fruit is either plucked by hand or shaken down upon mats or sheets spread beneath the tree, and after drying under sheds, is carried to the mill and passed between wooden rollers to strip off the thick, dry coat, from which the beans are separated by sieves. After a second drying, these beans are passed through another mill, which rubs off a skin called the parchment, or husk ; this is winnowed away ; the beans are dried a third time, dirt and broken pieces picked out, and are then packed for the market. Unless thoroughly dried, coffee is very apt to heat and spoil when stowed in the ship, and to secure a perfect flavour the cargo should consist of nothing but coffee, as it is sure to acquire the taste of other articles near which it may be placed. Instances have occurred of the genuine flavour of coffee having been completely spoiled by being shipped with sugar, rum, and tobacco.

The lower slopes of mountains, or sides of gently rising hills, with a tolerably dry soil, are the best situations for a coffee plantation. The trees are set from five to ten feet apart ; the wetting of the leaves by an occasional shower is considered be-

neficial, and when too much exposed to the sun they are sheltered by rows of taller trees. Fruit makes its appearance in the second year, but is not so good as that gathered when the trees are older: the quantity varies from one and a-half to two pounds a tree. A plantation will last for thirty years. The smallest berries are considered to be the best flavoured: Mocha coffee is of this kind and dark yellow in colour; that from Java and the East Indies is larger, and pale yellow; while the berries grown in Ceylon, South America and the West Indies are largest of all, and of a bluish green hue.

The Mocha, or, as it is sometimes called Turkey coffee, is the best flavoured; next in quality is the produce of Java, South America, and the West Indies, and last, Ceylon. The action of coffee on the body is mainly due to certain acid and oily properties contained in the berries, and greatly developed in the roasting process. There is, besides, a considerable quantity of nitrogen, which is supposed to have an important effect on digestion. The nerves too are excited, and a feeling of vigour imparted to the whole system. People in general are more lively than usual after drinking coffee; studious persons keep themselves awake by it, and find that it removes the sense of weariness. When taken after dinner, without milk or sugar, digestion is greatly assisted by coffee, and for those in the habit of swallowing quantities of wine it is one of the best restoratives. It enables travellers to bear fatigue, and to encounter the night air, and in cold damp climates, or fenny districts, furnishes an admirable stimulant. When used on board ships most sailors prefer it to grog; they can bear the hardships of storms, and go through their work better upon hot coffee than upon ardent spirit. The decoction is also beneficial in cases of intermittent fever, and in asthmatic and some other internal complaints, and is the best antidote that can be used against vegetable poisons, such as laudanum, tobacco, &c., which cause drowsiness. Vinegar is sometimes given for this purpose; but coffee is preferable as it may be administered (without milk or sugar) while the poison is in the stomach, whereas the drug should always be pumped out before vinegar is given.

Raw coffee is sometimes used in medicine; it has a sweetish taste. The agreeable odour or aroma which it gives out when roasted, is caused by the action of heat upon the caffeic acid contained in the berry. Chemists extract this acid from a decoction of decayed berries; it makes a bright and unchangeable green. It is believed that the nitrogen acts on the bile, imparting to it an essential quality; hence coffee, though commonly supposed to be an astringent, has a gentle opening effect on the bowels of most persons. But coffee, as well as other things, may be abused: very stout persons, and those subject to congestion, or to the piles, should avoid the use of it; at times also it is injurious to females. When taken in excess it produces palpitations, anxiety, or feverishness; and occasions twitching of the eyelids and disturbance of the sight. It will often cause toothache, and sometimes cure it. Still the uncomfortable effects generally disappear as soon as the use of the beverage is discontinued; and in this respect coffee has a great advantage over wine and some other liquors, whose ill results can scarcely ever be removed.

As a general rule, persons should not confine themselves strictly to one kind of beverage at their morning meal: instead of coffee chocolate, cocoa, or tea should be occasionally taken.

Formerly, old coffee was considered the best, but at the present time those berries are preferred which have not been kept more than a year. When roasted, the berry, though it has lost weight, is nearly double its original size. In England coffee is generally over-roasted, and ground too fine; and instead of being used at once is often kept for months. It is useless to expect a good cup of coffee while such is the case. The process of roasting is thus described by a writer in the *Penny Cyclopædia*:—'The roasting should take place in a close revolving iron cylinder, over a clear but moderate fire, and should not be carried too far: when the beans have acquired a light chestnut-colour the roasting should be discontinued. The beans are then to be cooled quickly by being tossed up into the air, and the grinding, or rather rough pounding, should be performed in a covered mortar or mill. The drink should be prepared from it as soon as possible.'

In 1801 the duty on coffee imported into this country was one shilling and sixpence per pound, the quantity consumed being 750,861 pounds, or about an ounce for each individual of the population yearly. In 1841 the duty was reduced to sixpence, and the consumption rose to 27,298,322 pounds: in 1842 a further reduction to fourpence per pound took place on coffee brought from British possessions, and sixpence on foreign coffee, and as a consequence 40,000,000 pounds were consumed in 1848. Large as these quantities are, they would be still larger, were it not for the huge adulteration which takes place with regard to coffee. This is effected by means of chicory, of which it is computed that over 10,000,000 pounds have been used for the purpose during last year. This is one of those atrocious frauds which traders and dealers are too ready to inflict on the public; for although pure chicory is a harmless thing in itself, yet as it costs wholesale but about threepence per pound, it would be much the best way for people to buy it and mix with the coffee themselves, instead of paying from one to two shillings to the dealers, who sell the two ready mixed. Purchasers ought never to permit themselves to be taken in by advertisements of ready-ground coffee, 'pure mountain growth,' &c., packed in lead, with showy labels Such announcements are delusions: and the more handsome the package the more reason is there to suspect adulteration. Sometimes what is called a pound of coffee contains eight ounces of chicory, but under ordinary circumstances the buyer of a pound of the ready-ground powder, may depend on having at least four ounces chicory, by which, if he pay sixteenpence, he is cheated of fourpence. Even the chicory itself is adulterated with waste or damaged grain, coffee husks, and peas or beans all roasted, and when ground, coloured with Venetian red. Once passed through the mill, this rubbish has a genuine appearance, and customers are deluded with a plausible sham, warranted as 'Fine-flavoured Mocha' or 'Rich Berbice.' The grocer's mill has much to answer for!

Now there is a very simple way of detecting chicory in coffee: it is this.—Drop a spoonful of the powder into a wine glass or tumbler nearly filled with cold water: if pure coffee it will swim, and the water will scarcely be altered in appearance; but if chicory, it sinks to the bottom, and stains the water deep red. This is so easy that every one may try it. To detect roasted corn in coffee, a chemical test is required: the suspected powder is to be mixed with water as above described, and a few drops of solution of iodine poured into the glass, when, if roasted corn be present, the liquor turns blue. Besides these, there are other modes of adulteration adopted by unprincipled traders; one is to mix dark coloured sand with their coffee: it would not answer to mix sand with sugar, as it would be seen at the bottom of tea-cups, but no one thinks of looking for it in coffee-grounds. Of all reforms calculated to benefit the working-classes, there is none that would be so immediately advantageous as their obtaining fair weight and measure, and a good article for their money.

Chicory is a species of endive, or dandelion; it is much cultivated in this country, but on the continent, in Germany and Belgium, enormous quantities are raised. When full-grown the roots are dug up, and after drying are cut into small square pieces and roasted, and then ground. Poor families abroad, who cannot afford to buy coffee, use chicory instead; the taste is not unpleasant, but by no means equal to that of genuine coffee. Carrots and parsnips are frequently prepared in the same way for the purpose of adulteration.

With a view to prevent the frauds which we have indicated, it has been proposed to lay a duty on chicory equal to that on coffee. As the law stands, any grocer selling roasted vegetable as a substitute for coffee, is liable to a penalty; but for some years this act has not been put in force. The subject has lately been brought before parliament, and it is to be hoped that discussion will end in honester practices. The coffee trade is of sufficient importance to make it worth while for Government to look after it, and as far as possible see that people have a cheap and genuine article. Coffee-houses are increasing in number, all over the country: London contains 2000. The charge for a cup of coffee at these houses is from one penny to threepence, with sugar and milk; some have from 700 to

800 customers daily, and one as many as 1600. Besides the coffee, there are many newspapers, magazines and reviews provided, which all classes may read without additional charge: coffee-houses in fact assist the cause of order. A proprietor stated before a parliamentary committee:—"I believe we may trace the teetotal societies and those societies that advocate temperance for working-men entirely to the establishment of coffee-houses, because a few years ago it used to be almost a matter of ridicule amongst working-men to drink coffee; now they are held up to emulate each other. I believe that not one-third of my customers ever go into a public-house at all. I have never heard an indecent expression, and, with two exceptions, have never seen a drunken man in my house."

A GOOD CUP OF COFFEE.

It is remarkable that so much as coffee is used in this country, the proper mode of preparing it as a beverage should be so little understood. Perhaps it is that most people consider coffee-making as too easy a process to need any pains at all; and for this reason the coffee served out at nine breakfast tables out of ten throughout the kingdom is a miserable muddy infusion, which people seem to drink only because, as washerwomen say, it is 'wet and warm.'

The right way of making coffee is not less easy than the wrong one; there is no mystery about it. All that is required is the observance of a few simple rules.

We have known some people to put the coffee-powder into the coffee-pot with treacle or sugar, and then to fill up with cold water, and boil the whole together. We hope there are not many who pursue such a mistaken practice. Others will make use of isinglass, or yolk of eggs, to 'fine the liquor;' or at all events they must have a biggin, or a patent percolator. Now we know from long experience that none of these articles are necessary; we will undertake to make first-rate coffee, clear and bright, in a frying-pan. The ordinary coffee-pot is the most convenient and useful utensil for the purpose.

We come now to a few particulars which it will be desirable to bear in mind:—

1. The nature of coffee is such that it parts very easily with its aromatic, stimulating and other properties; a small quantity of water will draw out all the goodness quite as effectually as a large quantity; and it will do this if the coffee-berries be only bruised, or very coarsely ground. It is a grave mistake to suppose that coffee should be ground to a *fine* powder; extreme fineness is the great cause of 'thick coffee' as prepared for breakfast. In eastern countries, where people know what good coffee means, they always bruise the berries in a mortar. In fact the goodness of coffee depends more on the roasting, and the method of preparing afterwards, than on the quality of the berry, or any other particular.

2. Buy your coffee ready roasted, but *not* ground: that is, buy coffee-berries, and always choose such as are fresh roasted, in preference to stale. Observe also whether your grocer keeps the article properly shut up in tin canisters, or lets it lie about in open tubs or trays.

3. If possible, buy a coffee-mill, one that will grind very coarsely. The price varies from half-a-crown to five shillings. This article is so essential to a good cup of coffee, that no one who can afford the outlay should hesitate to buy one. Those who have a pestle and mortar may try the method of bruising; but whether a mill or a mortar, no more should be ground or crushed than is wanted for use at the time.

4. Coffee requires to be kept in a very dry place; and as it readily takes up the flavour of other articles near which it may be placed, it should be kept in an air-tight tin canister. If you buy tea and coffee at the same time, do not pack them in the same parcel or basket, or carry them in the same pocket, for the true flavour of both will be injured. We presume that no one will be so careless as to keep either tea or coffee in paper only; a wooden box would be better than this, but the tin canister is best of all.

5. Have a clean, dry, coffee-pot: it should always be rinsed out when put away, and turned down to drain.

6. To every half-pint of water, allow half-an-ounce of coffee-powder; have your kettle of water boiling, put the necessary quantity of powder into the coffee-pot, and pour in as much water from the kettle as you require. Set the pot on the fire for a few seconds, but on no account let the contents boil up; then pour about half-a-pint of the liquor into a cup, and pour it back again into the pot, and stand it on the hob or on the fender to settle. If these directions have been properly followed, there will be, in three or four minutes, a pot of coffee as clear and well-tasted as any one could wish to drink. Should it be too strong you have only to use less of the coffee-powder. All the goodness is extracted with the first boiling: and those who wish to drink good coffee, must never boil the same grounds a second time.

7. The milk, in all cases, must be boiled, and used as hot as possible; and it should always be put into the cup with the sugar, before the coffee is poured in. When a cup of coffee is taken after dinner, it should be drunk without milk, and with very little or no sugar.

But of all the preparations of coffee, there is none equal to the French, known as *café au lait*, or milk-coffee. We have drunk it constantly for several years, and can pronounce it to excel all others as a breakfast beverage. In this there is more milk than water, and the coffee liquor is rather an essence than a decoction; it will be almost black in colour. The process to be followed is the same in most respects as above described (6); but instead of a quart or three pints, not more than a third of your usual quantity of water is to be poured on the full quantity of coffee-powder. After it has stood to settle, pour it carefully off the grounds into a jug or pitcher, which is to be kept hot by any convenient means. In this way the liquor, though black, will be perfectly clear. At the same time a quantity of milk, according to the wants of your party, must be boiled in a saucepan with a spout or lip. When this is ready pour it into your breakfast cups until they are three-parts full, or rather more, add the sugar, and then fill up with coffee from the jug, more or less according as you prefer it strong or weak.

Coffee made in this way, will be found more nutritious, and to possess greater richness and smoothness than can be attained by any other means.

THE DISHONEST FAMILY.

PART I.

In a certain place, no matter where or when, lived a family of dishonest people. Not that their professed occupation was stealing. Oh no, far from it. Indeed, had any one but hinted at the possibility of a rogue being found in that family, every member of it would have been extremely angry. However, having a good purpose to serve, I shall not scruple to lay before my readers a few of the practices of these persons,—giving also some account of their up-bringing, their way of life, their course of life, and their end, so far as the end is known.

If anything can excuse a dishonest action it is utter destitution. Solomon tells us that 'men do not despise a thief if he steal to satisfy his soul when he is hungry;' and though, under any circumstances, theft is a crime against both God and man, we should be loth to deal hardly with a poor man or woman, driven to desperation by absolute need. But Jerry D— had no excuse of this sort to plead. He began the world in tolerably good circumstances, and with promising prospects. The cottage in which he dwelt and brought up his family, was his own; and so was the farm of six or seven acres which surrounded it. These he inherited from his father,—a hard-working, honest man, who never thought that his only son would grow up to be a dishonest man.

'The love of money is the root of all evil,' is the declaration of Scripture; and from this root sprang Jerry D—'s evil propensity to appropriate what did not belong to him; and which first began to be suspected when he came into his inheritance. There was an old housekeeper who had lived many years with Jerry's father, and had nursed him in a long illness; there was a village schoolmaster who dwelt hard by, and there was

the curate who visited old D— several times before he died ;—all these declared that a testamentary document had existed a few days before this event, in which twenty pounds were bequeathed to the housekeeper just mentioned, for long and faithful services. There were also two neighbours who had witnessed the signing of this will. The paper, however, was no where to be found when wanted ; and though no one could prove that Jerry had taken it from the old-fashioned bureau in which his father had placed it ; and that he had destroyed it almost as soon as life was out of the old man's body, there were many who believed it, especially as he positively refused to remunerate the old servant for her loss and disappointment, and turned her out of the house as soon as the funeral was over. It is true, old D— might have repealed his 'act and deed,' and himself destroyed the will before he died ; but no one would credit that he had done so. When, therefore, Jerry entered upon his patrimony, it was under a suspicion that he had played a very dishonest trick.

Farming-work had been Jerry's occupation from boyhood ; and now that, at about thirty years of age, he had succeeded to a little farm of his own, together with a furnished cottage, and a few score pounds in the bank, he thought it was time to marry. He chose his wife, not for her principles, but mainly for her dowry of three or four good milch cows, which Jerry judged would prove a valuable acquisition to his stock.

Now, though Jerry was avaricious, he was not remarkable for right down industry. His wife, on the other hand, was really a notable kind of woman, and fond of hard work, especially when anything was to be got by it. Altogether, therefore, it was said that Jerry had made a good beginning, and, notwithstanding the odium which the legacy affair had stirred up against him, his neighbours predicted that the newly-married man would rise in the world.

"Yes, to the gallows, if he goes on as he began,—with cheating," muttered the indignant schoolmaster ; but as he was only a schoolmaster, no one particularly minded what *he* said.

What Jerry wanted in plain straightforward industry, he made up in low cunning, which he called cleverness ; and he soon found, to his satisfaction, that he had got a helpmeet worthy of him, for Sally D— had an eye as sharp as his own to what they deemed the main chance, and was troubled with no scruples of conscience about the means of attaining any end she had in view. Neither wit nor will were therefore wanting to put them in possession of that gain which assuredly they vastly preferred to godliness.

And yet, somehow or other, it came to pass that, after a few years hard striving, by fair means and by foul, Jerry had made very little progress in the world, and, moreover, that he had got what he did not want, a bad name among his neighbours. Many circumstances, in fact, had transpired to show that he was not to be trusted. At markets and at fairs, Jerry D— was known as little better than a sharper. He dealt in corn ; but when he bought, it was at the close of the market, and of some small farmer, like himself, who, disappointed in a more honourable customer, was compelled to sell below the market price, to make up his rent, or to meet some pressing emergency. If, on the other hand, Jerry had corn to dispose of, his sample was sure to be better than his stock. If he had a horse to sell, no one better than Jerry knew all the tricks and turns of a horse jockey ; and his customer had soon to find that he had made a bad bargain. If he had an unprofitable cow, to the next fair it went, and Jerry had the impudence and wickedness to pass it off as a first-rate milker. A neighbouring grazier once thought he had bought of Jerry a score of sheep very greatly to his advantage ; but he had not long congratulated himself on the purchase, before the poor animals began to pine away and die off rapidly with a disease which Jerry well knew they had taken in his own pasture. On another occasion, he obtained change for several bank notes from a shop-keeper who lived near, when, as was afterwards proved, he knew, though his victim did not, that there was a run upon the bank which had issued those notes. The next day, the bank was closed, and Jerry congratulated himself on having saved twenty pounds by his sharp-sightedness, though it was exercised at the expense of his obliging neighbour.

These are only specimens of Jerry's dishonesty; and, in her way, his wife was as bad as himself. The milch cows which she brought as her marriage portion, added to Jerry's previous stock, made a capital dairy, and, without any attempt at cheating, would have been a source of considerable profit. But this did not satisfy the greedy and bad principled woman. The milk which she daily sent to the next town for sale, was so scandalously diluted with water that, at length, the customers refused to take it in; and the butter which she carried to market was made of cream so poor, from extra skimmings, and was consequently so tasteless, that she could not dispose of it at the full market price. Thus, her very attempts to obtain large gains, after a time, recoiled upon herself in inconvenience and evil notoriety. She would not see this, however, and still continued her bad practices until it became a standing joke among her neighbours, that even Sally D—'s poultry had caught the infection of cheating, and laid smaller eggs than any other poultry.

Now, it is very true that some persons who practise every kind of meanness, for the sake of money-getting, do attain their object, and, as the Psalmist says, 'have more than heart could wish.' These instances seem to put to shame the old proverb, 'honesty is the best policy,' and make the truly upright ready to say, 'Verily, I have cleansed my heart in vain, and washed my hands in innocency.' But when we 'understand the end of the wicked,' we perceive that, in their very prosperity they are set in slippery places, while they are often, as in a moment, brought into destruction, and utterly consumed with terrors. It is not always, however, that low trickery and cunning dishonesty are successful, even for a time. They were not so in the case of Jerry D— and his wife, who, after several years of scheming and uncomfortable companionship, found themselves embarrassed in circumstances, and encumbered with a rising family, for whom they had no very strong natural affection; while they had the additional mortification of seeing success crowning the more honourable industry of some who had begun the world less hopefully than themselves, and whom they had despised for their honest simplicity. Indeed, there seemed a spell cast over Jerry D— and all that belonged to him. His wife was discontented and quarrelsome; his children were disobedient. In pursuing some underhand scheme for enriching himself, he had often neglected the course of plodding industry, which, in the end, would have brought in more sure gains. A sickly season carried off the greater part of his live stock, which he had not been able, as before, to put off upon an unsuspecting buyer. In addition to these troubles and losses, he met, in some bargain, with a man of his own stamp, who proved a greater adept than himself at cheating, by whom he suffered in purse very severely. These things might have taught wisdom to Jerry D—; but they did not. He was an example to the true proverb, 'Though thou shouldest bray a fool in a mortar, among wheat with a pestle, yet will not his foolishness depart from him.' He was a stranger to that contentment which, with godliness, is great gain; and he had no idea of the meaning of such words as these, 'The blessing of the Lord, it maketh rich, and he addeth no sorrow with it.'

Having brought the history of Jerry D— to this point, we leave it for a while, just observing that there are many ways of being dishonest, without absolutely taking with the hand what belongs to another. Some persons may say that it is not only allowable, but praiseworthy, to exercise the wits in matters of business; and that, in dealing, everything is fair, so that we do not expose ourselves to direct punishment by law. In reply to this we have only to say that the Bible teaches us a different morality:—'As ye would that men should do to you, do ye also to them! And we would have such persons reflect upon the certain end of all who steep their souls in injustice and covetousness. Covetousness is idolatry: injustice is ungodliness. To live in such a state is to live without hope; to die thus, is to die without pardon and peace with God. Are the profits and pleasures of cheating worth such a purchase price, think you?

Moreover, the gains of unfair grasping are not always very great. Very cunning men often outwit themselves, and find by experience that, 'Wealth gotten by

such vanity shall be diminished,' while 'he that gathereth by labour shall increase.' Jerry D— was an example of this sort; and, in tracing the further history of himself and his family, we shall perceive the strict verity of another inspired proverb,—'Bread of deceit is sweet to a man; but afterwards, his mouth shall be filled with gravel.'

CHAPTERS FOR BOYS.

RABBITS.—NO. I.

THE present article will be about rabbits, those pretty little creatures, of which most boys are so fond, and which afford them useful occupation. We are going to give them some useful information respecting the best methods of breeding, rearing, and managing rabbits in general; and our remarks may probably prove useful to older persons, who may think it worth while to take the pains of paying attention to this useful and profitable species of live stock.

Almost every boy in the course of his life takes a fancy to rabbit-keeping, and yet scarcely one boy have we met with, who knows how to treat the animals properly. Many rabbits, we are sorry to say, have been starved by neglect, (not wilfully perhaps), poisoned with filth, or foul air, or otherwise destroyed by injurious treatment. While on the other hand many are killed with kindness, by supplying them with an over-abundance of certain kinds of food improper for them. We now wish to point out these things, and to give judicious practical directions for the management of rabbits.

RABBIT HOUSE.—The first and most important matter is to have a good dry house or shed, in which the animals can be well protected from damp weather. Too much moisture is as fatal to rabbits as it is to sheep; it gives them the rot. Dampness may be all very well for fishes, but is not good for men, women and children, nor yet for horses, cows, pigs, poultry, bees, or rabbits; these all thrive better and are preserved from many diseases by being protected from it.

But though you keep out the wet from your rabbit-house, you must not at the same time exclude fresh air; for rabbits can no more be in health without *fresh air*, than human beings. Remember what has been said to you on this subject of ventilation, it is sheer folly to suppose that any living creature can be maintained in health and vigour without an ample supply of that 'balm of life,' FRESH AIR. Disease and death are the natural consequences of a vitiated atmosphere.

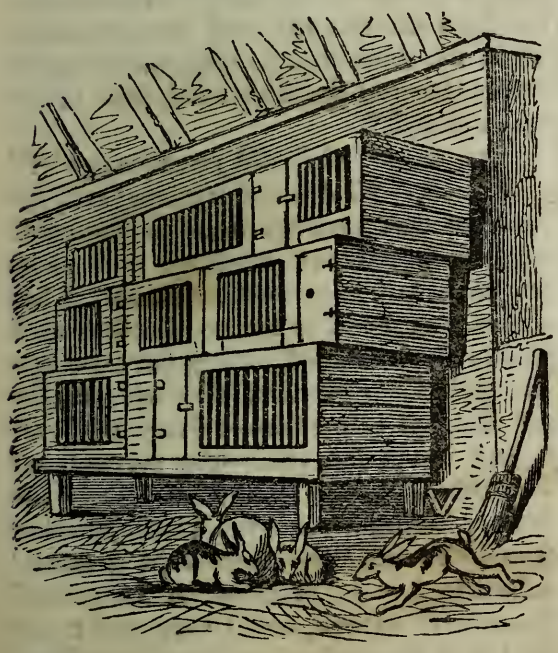
Many writers, and among them Howitt, in that delightful work for boys, *The Boy's Country Book*, advise that rabbits should not be kept in hutches, but in little houses, so constructed, that they may have protection from the weather, and at the same time enjoy their liberty and amuse themselves. This house may be built about four or five feet square, as may be convenient, with a roof formed to carry off the rain. The floor should be boarded or paved, to prevent the rabbits from burrowing, and have hay or straw laid on it. Some boxes must be provided, placed on the floor with the open side downwards, and with holes at the side for the rabbits to go in or out. Sliding doors to these boxes are convenient to shut in the rabbits when necessary.

In the front of the house there should be a little court, or yard railed off, into which the rabbits may be allowed to run when the weather is dry; and here they will sport and enjoy themselves, and give you opportunities of observing their pretty antics.

But this house will only do for *young* rabbits, or until they are about five months old; after that age, they would begin to tear each other to pieces, if left together; all the pleasure you had in witnessing their former harmony and happiness would be gone; the bucks would fight dreadfully, and the litters the does might have, would be destroyed, so that it is necessary that breeding does should be kept in hutches, and the bucks be separated from one another. But we nevertheless advise that young rabbits should be allowed to have their liberty in such a house, as they will be far more healthy,

and will grow much better, than when they are cooped up in hutches, where they have no room to exercise their limbs. Rabbits of any age, from the time they are taken from the doe, up to five months old, may be introduced among the '*happy family*' in the house, they will be received with cordiality, and will skip and caper about with pleasure, just as boys may do who live in peace and love with their companions.

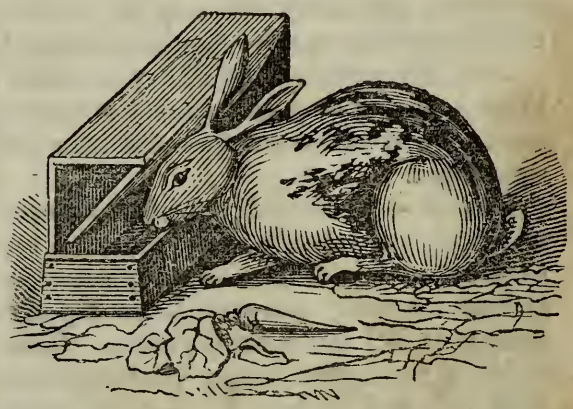
HUTCHES.—The hutches should be made as large as convenient, that the rabbits may not be cramped for want of exercise ; those for breeding does must have a partition, so as to form two apartments, one for feeding, the other as a bed. Single hutches, that is, with one room only, will do for young rabbits, or for bucks to be kept in. The door of the feeding apartment should have wires in it, but that of the bed-place must be of wood, as the doe likes darkness and concealment when she has her litter. It is well to have a sliding-board to divide the two compartments, and to shut out the rabbits when the hutch is to be cleaned, as it is very inconvenient to do this with the rabbits running about. The floors of the hutches should be quite smooth, that the wet may run off, and in order to facilitate this a small slit or opening in the floor at the back of the hutch should be made, and the hutch itself be put sloping, a little



higher at front than at the back, for when rabbits have much green food, there is a considerable quantity of moisture which requires to be drained off, that the creatures may be kept dry and clean ; and if proper means be taken to receive this into a drain, it forms a very valuable liquid manure.

The hutches may be arranged one above the other around the house, to any convenient height, only it must be observed that each row of hutches should project at the back beyond that under it, in order that the wet may not run down into the hutch beneath. If a trough be placed on the floor behind the hutches, it will serve to carry off the liquid manure into some convenient receptacle.

FEEDING TROUGHS.—Are usually made in the form of a long open box, but this is inconvenient in many respects, as the young rabbits get in and spoil the food, and the older ones scratch out much of it, tread it under foot and waste it. A better plan is to have a swinging board in front, the cost of which is soon made up by the food saved. The rabbits when they take their food, push this board inwards with their forehead, and when the head is withdrawn the board flaps back against the front of the trough. Some persons have a lid to the trough which the rabbit soon learns to lift, and which shuts down again of itself as soon as the head is taken out of the way.



There are many KINDS OF RABBITS, varying in size, form, colour, length of legs or fur, and position of the ears, but the races have been so continuously intermixed, and varied, by breeding, that it is a difficult task to point out any distinct kind as preferable. The smallest and short-legged variety, of the colour of the wild rabbit, appears to be the hardiest. Boys generally prize LOP-EARS, though

they are scarcely so pretty in appearance as the common kind. There is the *single* or *double* lop, according as one only, or both ears are dropped. Smuts too are favourites, either *single* or double. The smut is a black spot on the side of the rabbit's nose, and a spot on each side constitutes the double smut. Some of these are very beautiful creatures, having a white silvery fur, with rich, glossy, black spots, and they are generally large-sized rabbits. In our next chapter we shall treat of the proper kinds of food, the diseases to which rabbits are liable, and their profitableness.

PRACTICAL HINTS ABOUT WASHING.

Mrs. Bird.—"You had an interesting meeting at the Town Hall on Tuesday, I dare say?"

Mrs. Grant.—"Very much so.—How was it you were not there?"

Mrs. B.—"It was my washing-day, and I could not get out—I do not like to leave home when workpeople of any sort are about.—To be sure the bare washing was done, but there are always a great many little things to attend to. Besides, after stirring about all day, I felt too tired to enjoy the meeting."

Mrs. G.—"Ah, washing is a bustling, fatiguing time, make the best of it, though I think some people make more fuss than they need.—I don't mean you, for you are a good manager, and get it up with as little trouble as possible; but I know one house in particular which is at sixes and sevens the whole week long. The poor man sometimes comes to our house for an hour or two to get out of the way of it.—He calls it hanging out the flags of distress."

Mrs. Edwards.—"But do you know there is a new way of washing invented now.—I saw an advertisement of it in the newspaper.

Mrs. B.—"I should not be at all surprised if it is just the same, or nearly so, as one that I have had in my possession at least twenty years.—If I can lay my hand upon it I will show it you.——Here it is, in my housekeeping common-place book, I had it from A——, in Berkshire. Almost every family there adopted it, and it was made just as much talk of as this can be now.—'Ingredients—Soap, either soft or yellow, three-quarters-of a-pound; soda, a quarter-of-a-pound; quick lime half-a-pound. Pour over the soap and soda half-a-gallon of boiling water, and stir or whisk it to a good lather. About the same quantity is to be poured over the lime, which must be quite fresh. If it do not hiss, bubble, and crack when the water reaches it, the virtue is gone. When this liquor is quite clear, pour it steadily off, add it to the other mixture, stir them well together, and put into the copper with as much water as will be required for the quantity of clothes to be washed.

Unless the wash is very large, all the clothes to be washed may be put in the copper at the same time, the coarsest and dirtiest at the bottom. Collars and wristbands of shirts and feet of stockings should be previously rubbed a little, but no other rubbing is required, four hours is a sufficient time to boil."

Mrs. G.—"Four hours! Why, Mrs. Saunders told me twenty minutes!"

Mrs. B.—"Four hours is what my recipe says—'or,' it adds, 'if more convenient, the clothes may be put in overnight, and the copper made to boil up; then fill the copper-hole with small coal and cinders, and leave it all night. In the morning light the fire and boil up once more, when the linen will be sufficiently done: wring it out of the liquor and rinse in hot water blued."

Mrs. G.—"Well, did you ever try it?"

Mrs. B.—"I did not try it myself, because at that time we were in the habit of putting out our washing, and since we have taken to wash at home, it has scarcely occurred to my recollection till I was lately reminded of it; but my opposite neighbour at that time tried it, she did not find it answer—I fancy with her it had not a fair trial—the servants set themselves against it, and most likely she did not look much into it herself. Another friend of mine, who then kept a ladies' school in A——, practised it for several years with success, and I very well know that it is the method constantly practised in Norfolk. A friend of mine who settled in that county some twenty years ago, a

thoroughly domestic managing young woman, found that the people she employed were in the habit of proceeding on that plan, and though very different from what she had before been accustomed to, as on trial she found it answer, she readily adopted it. My daughter-in-law too, who comes from those parts, tells me she always has her children's white clothes done in that manner, just rubbing the feet of the cotton socks over night, and leaving them in soak, and in the morning boiling the whole with a mixture of lime-water, soda, and soap: she boils them half-an-hour."

Mrs. G.—"Don't you think the lime must rot the linen?"

Mrs. B.—"My Norfolk friend says she has not found it so, and also the lady I mentioned at A——, who kept a ladies' school. They both think the lime-water less destructive than the hard rubbing which this method gets rid of."

Mrs. G.—"But to talk of boiling all the things at once! I am sure my great washes could not be got into the copper at three or four times filling."

Mrs. E.—"If I am not mistaken, Mrs. Saunders said the same stuff would serve for boiling up three times."

Mrs. B.—"And then, you know, this method can only be applied to white things, all coloured and woollen things must be done separately."

Mrs. G.—"That had not struck me, but I suppose they must. I have more than once had both coloured things and flannels spoiled by the use of only a little soda. But if they require to be washed separately, how is it possible that a great wash can be got through by one servant before breakfast?"

Mrs. B.—"I venture to say it is *not* possible unless she was up all night to do it; or that breakfast was deferred to Monday — neither of which is a reasonable supposition. Besides, if the washing itself were done, it is nonsense to talk of being at leisure to sit down to needlework. If the mistress were a fine lady who took no share in household business, she might sit down to needlework, or music, or whatever else she pleased; or go out to pay morning visits if she liked it better, let the washing be done whichever way it might. But if she was really a domestic manager, she would not need to be told that when the clothes are out of the washing tub there are yet many things to be done before the wash is got up, and both mistress and maid must move about briskly, if they would get through them before night, hanging out, taking in, starching, folding; to say nothing of mangling, ironing, airing off, and putting away, which in a 'large family' will give full employment for a second day. If the plan be a good one, it is a great saving of labour in the matter of rubbing, and in the quantity of soap required; but it can make no difference in any other respect. But many people are apt when they have learnt any thing good to make too much of it; and that raises false expectations in some, who hope to find it good for every thing, and leads others to reject it with prejudice, as if it were good for nothing."

Mrs. E.—"My wash is next week, and I should really like to try the plan, if you will give me leave to copy your recipe."

Mrs. B.—"Certainly, it is quite at your service, and I think I shall try it myself."

* * * *

Mrs. Bird.—"Well, Mrs. Grant, I suppose you have tried the washing experiment, how did you find it answer?"

Mrs. Grant.—"Oh, don't ask me, I am quite vexed to think of it, my wash was a complete chapter of accidents."

Mrs. Edwards.—"But do tell us about it; it is nothing between ourselves, and it is not to be expected that we should succeed so well the first time, as when we have had a little more experience."

Mrs. G.—"Well, the first thing that I was wrong in, and which, indeed, ran through the whole business and thwarted it at every turn, was doing it at an unsuitable time. I had fixed my time for washing and was not inclined to put it off, though I was ill myself, and had company in the house. So I could not be about to see to it myself. My servant and washerwoman might have got along tolerably in the ordinary way, but any thing fresh is sure to put them out, and they did not do half as well as usual. They kept teazing me with complaints of all manner of difficulties. Where were they to get lime? How were they to get the exact weight of things, (we don't happen to have a pair of scales in the house, but I certainly will get a pair, they are handy for so many purposes); and what vessels could they have to put

the things in? Instead of being done before breakfast, it was almost dinner time before the clothes were got into the copper, then the women went away and let the copper fire out. At last when one portion of the linen was boiled enough, they had no hot water ready to scald them."

Mrs. E.—"That *is* a difficulty,—we happen to have two coppers, but those who have not a second copper, want a large kettle, or other vessel free from grease, and must have another fire at command for heating it. It strikes me that even the number of vessels required would render the plan unsuitable to poor people who have but few conveniences. But do tell us how you got over your difficulties."

Mrs. G.—"Well, by the help of chips and bellows, and tea kettles, hot water was obtained and the first linen scalded. Then for a little while things seemed to be going on tolerably well. The first lot was hung out, and by that time the second lot was ready; and these things when dry looked tolerably well. But I suppose for the third boiling either the copper was crammed too full, or the liquor was too much reduced, and night came on, and the weather next day was unfavourable for drying, and one way or another the whole was so bemuddled, that when I put away the linen almost a week afterwards, I could not help saying,

'Oh, worse for mending, wash'd to fouler stains!'

Now I have candidly told you my story, though I am really ashamed of it; but I shall try again. This was not a fair trial—things may turn out better next time. Come Mrs. Edwards let us hear how you succeeded."

Mrs. E.—"Why pretty well, I had good weather for drying, and was able to attend to it myself. It certainly is a saving of labour, but I think not so great as is represented. Things really dirty require good rubbing and soaping before they are boiled, or the stains will be boiled in. I tried this with some things of little value, some of them were thoroughly rubbed and some only slightly rubbed, and the difference in appearance between the two when got up clearly proves, at least to my satisfaction, which of those plans is best. The things when dry were of a very good colour, but they have an unpleasant sticky feel, like new calico. That is the principal fault I find with the method."

Mrs. G.—"But how did you manage to have fresh hot water ready for scalding them?"

Mrs. E.—"By having my second copper lit. This was filled with rain water, with which the flannels and coloured things were washed, while the white things were boiling in the other copper, and plenty of clean hot water remained for scalding them when they came out of the water. But I want to hear Mrs. Bird's story."

Mrs. B.—"My story agrees pretty well with yours. Perhaps you will think me very fond of trying experiments, when I tell you, I have tried it three times, once according to Mrs. Saunders's method, once according to the old recipe from A——, and once with—what I thought, some little improvements of my own."

Mrs. G.—"Do let us hear all about it."

Mrs. B.—"The first time, I had half-a-pound each of soap and soda, and only a quarter-of-a-pound of lime. The lime was what I felt rather in fear of, so I thought it best to begin on a small scale. Over the soda I poured half-a-gallon of boiling water, and about a quart on the lime in another vessel. Then I boiled the soap in half-a-gallon of water, and having poured that out in a third vessel, I put the other two, (the lime and soda) into the same saucepan and boiled them together twenty minutes. Meanwhile my servant was putting the linen in soak, rubbing the dirtiest parts with a little soap. She also put ten gallons of water into the copper, and laid the fire ready for lighting, for we had a mind to try whether it could be got up so early as was said. Next morning, the fire was lit at five o'clock, and the soap-water and the other mixture added to the water. The lime and soda water we strained through a hair sieve, pouring steadily so as not to disturb the sediment. While the copper was heating, she wrung out the things that had been put a-soak; and had them quite ready to put in the copper as soon as the water boiled. It was now getting to six o'clock. The tea kettle boiled, and I thought it would do us both more good to have our breakfast than to wait for it; so I made the coffee, and filled up the kettle again,

which, with a tin boiler that is never used for any thing greasy, was hot against we wanted to scald the linen. By the time that breakfast was over, the linen had boiled its time. The second batch was put in the copper at a quarter to seven, and the third at half-past seven. By half-past eight, the copper was emptied of that liquor. It was then filled with water only, for flannels and coloured things. I am sure my servant washed well, from five o'clock to nine ; and as to hanging out, I did it all myself ; but she had then to do the remainder of the washing. However, it was all done and cleared away in the forenoon, and that is very agreeable. The day being fine, the drying and folding were finished before tea. Now I will honestly say, that I could have gone to the Town-hall that evening, without neglecting any thing at home ; and without being too tired to attend to what was to be seen and heard at the lecture, which I could not do when I washed on the old-fashioned plan. But there is a great difference between being at leisure at ten in the morning, and at four or five in the afternoon."

Mrs. E.—" To be sure there is—any practical person must know that the one is impracticable, and would be fully satisfied in attaining the others ; but your second experiment?"

Mrs. B.—" Well, as to preparing the ingredients, I proceeded just according to the old recipe that I gave you ;—soap, three-quarters of a-pound, soda, quarter of a pound, lime, half-a-pound. But I did not have the linen put a-soak over night ; the copper was filled with soft water, and the fire laid for lighting, and lit as before at five o'clock. When the water boiled, I had it poured into tubs for washing the coloured things and flannels : then sufficient water and the other ingredients were put in for the fine washing. While the first copper was heating, the servant rubbed the collars and wristbands, and other things that required it, but did not wet things that were but slightly soiled. While the second copper boiled we had breakfast, and during the four hours that the linen was in the copper, the flannels and coloured things were all washed and hung out, some of them taken down and folded. The water for scalding was ready as before in the kettle and boiler, and was being used at eleven o'clock ; all the wash was hung out before dinner. I do not know that one of these plans was preferable to the other ; the work was finished about the same time, and the linen looked equally well, very white and clean ; but as Mrs. Edwards observed, they had an unpleasant sticky feel. I need not detain you long over my third experiment ; I dissolved the soda and soap separately, and am inclined to think there is an advantage in doing so. Begin by heating plain water, sufficient not only to wash the coloured things and flannels, but also to 'first' the white things, not considerably to soap, nor laboriously to rub them, as under the old system, but to rub and soap the parts that especially require it, and for the rest to do little more than wet and wring them out. When the copper with the other ingredients boiled, the white things were thrown in as fast as they were ready, and the coarser things remained in soak : an hour's boiling proved sufficient for the lighter cleaner things. When they were removed the rest were put into the copper and boiled on till all the rest were finished. But here is the main difference :—all the things were rinsed in cold spring water, blued, which I very much prefer to hot. The things look exceedingly well, and are quite free from the sticky feel. The conclusion I come to is this—that for things slightly soiled, the plan in either of its forms answers exceedingly well. I can quite suppose that for the dresses of boarding-school young ladies, it would be very satisfactory. For rougher, dirtier things, the method so far answers as to require less rubbing than in the ordinary way of washing ; but it does not supersede rubbing altogether, nor to the degree professed in the advertisements ; the grand secret amounts to little more than any woman of common sense would find out for herself—that all things do not require equal rubbing. I think cold water rinsing is decidedly preferable to hot, and in addition to it better still. Finally, in order to effect the business as quickly as possible, there must be plan and contrivance to make matters chime in together, as to heating water and carrying on the washing of those articles to which the lime and soda are not applicable, that all may be done together."

GARDENING AND RURAL AFFAIRS.

THE VEGETABLE MARROW.

A FEW years ago, this useful vegetable was very little known, and was considered so great a luxury, as to be only seen on the tables of the rich. It has now become more common, and from its merits may prove a very serviceable as well as agreeable substitute for the potato, while its amazing prolificness renders its cultivation a matter of economy for every one who has a garden.

The vegetable marrow is exceedingly nutritive and wholesome, either in a ripe or unripe state, and it has been proved to be quite free from that property of injuring delicate stomachs, which many green vegetables are said to have.

There are several varieties, varying in size, shape, and colour. The striped and speckled, dark green kind appears to be the most productive, but is not so pleasant in flavour as the light green variety which assumes a pale straw-colour when ripe. The seeds or plants of any sort, may be procured at a nurseryman's, and should be sown or planted as early as possible this month, (June) as they will now bear to be in the open ground. The richer the soil, the more rapid and luxuriant will be the growth. As they come up, and while young, the plants must be well watered, and shaded from the burning sun, until they have acquired strength. They may be grown in odd corners, not suitable for other things, upon dung-heaps, or trained along palings or walls, or over arbours, or the walls and roofs of cottages, in any way that taste or convenience may suggest. Nothing can form a more beautiful ornament to a garden, than the vegetable marrow trained either on trellis or on poles; the magnificent golden blossoms interspersed among the dark green, vine-like leaves, afford a specimen of oriental vegetation in all its luxuriance and beauty.

If in beds, the plants should be placed in rows eight or nine feet apart, and about three feet between each plant in the row. The general culture resembles that of the cucumber, and usually, if raised earlier than June, they require the protection of hand-glasses during the cold nights. The leading shoots, when about three feet long, should be stopped, by pinching off the head, that lateral, fruit-bearing branches may be produced. These must be pegged to the ground by bent twigs, as they advance in growth, so that the ground may be equally covered, and the fruit not prevented from ripening by the crowding of the branches together. The earliest fruit should be taken off, otherwise the plant will not grow strong and productive. When the soil is rich, more than one hundred of the fruit may be cut from each plant, varying from one to two or three pounds in weight, besides leaving several to ripen.

When eaten green, they should be boiled whole in plenty of water with a little salt; they must boil according to their size, from twenty minutes to an hour, or more, until they are quite soft. Many persons have a prejudice against marrows, from having tasted them half-cooked, in which state they certainly are not agreeable. When well done, take them up carefully, cut them open, and drain the water from them. Eaten with gravy from meat, or served up on toast with melted butter, or even with pepper, salt, and a little plain butter, they are, in our estimation, a delicacy not excelled by sea-kale or asparagus. The Italian method of cooking them is first to boil, then to cut in halves, and roast in a Dutch-oven before the fire, sprinkling with pepper, salt, and butter, and a little grated Parmesan cheese.

When ripe, they are also excellent as a table vegetable, if cooked in a proper manner. The following is a good method:—Cut the marrows into suitable-sized pieces, take out the seeds and spongy parts, boil in a good quantity of water, until soft enough to be mashed; when taken up, scrape off the yellow outside skin, mash with butter, salt, and pepper, as you do potatos, and you will have a treat.

There is another purpose equally, if not more valuable, for which vegetable marrows may be used; that is, as food for pigs. The crop is so abundant and so rapidly produced, occupying the ground but a short time, that it may be justly considered one of the most profitable species of food for swine-feeding. The fruit may be given to pigs either green or ripe, but in either case should be boiled. Indeed almost all food for pigs is more fattening, and consequently more profitable, if boiled first. It will be an advantage, perhaps, to mix the boiled marrows with the grain food for fattening hogs.

It would be well for some of our readers to put in a few plants; as soon as they have taken up the early potatos, they may put the vegetable marrows in the same ground, and though rather late in the season, they will, with proper management, and if the weather prove propitious, produce at the rate of from twenty to thirty tons per acre.

A writer in that able publication, the *Gardener's Chronicle*, thus speaks respecting this useful and delicious vegetable:—'I have been trying various experiments this autumn with ripe vegetable marrows, and I find they contain a rich sugary and farinaceous matter. To my taste, they are fine; and by those gen-

tlemen to whom I have sent them, they were very much approved of, when cooked in the following manner:—Cut the marrows into manageable lengths, take out the pith and seeds, boil them in plenty of water and salt, and when well boiled, scrape out all the marrow, and put it between two dishes, and squeeze out all the water; then give it a little salt, pepper, butter, and milk, and mash it well; it is then fit for a queen, let alone a poor person.'

To Preserve Vegetable Marrows.—The following method, recommended by a country farmer, affords some valuable hints on this subject. Hitherto it has commonly been supposed that the marrow will keep only for a very limited period. Should these statements, however, be verified by more extended experience, we venture to predict that the marrow will become one of the best known and most valuable of English vegetables:—

'We have for several years been in the habit of keeping vegetable marrows for a considerable length of time, and succeeded in doing so in very different climates. It was not, however, until the season before last that we discovered (through accidental delay in the consumption of our stock) that this valuable and elegant addition to the table might be preserved, in perfection, far into the spring of the year following its production; and that it would thus keep, merely by laying the fruit on shelves, or on a dry stone floor in a roomy dairy, of which the window was constantly open by day until winter set in, though after the first indication of frost never unclosed at all.

'Last season every marrow was laid separately, and without any straw; thus, owing to the quantity stored, we were obliged to pile them (still with as little contact as possible,) one on another, and, fearing the intensity of the frost, a little fresh straw was scattered over them. In the first experiment not one perished in any way, and the last were cooked on Old Candlemas-day, and would in all probability have kept two months longer. In the second, out of fifty marrows, about half-a-dozen went off latterly with spots of brown mould, which quickly spread over the whole fruit, and rotted it; whether this was occasioned by the excessively wet season in which they were produced and gathered, or by the slight difference in the mode of storing, only a third experiment can decide. However that may be, some yet remain in high perfection at this present time, the middle of March. Those stored were all gathered at exactly two weeks growth between the middle of July and the middle of September; such as attained inactivity later, not answering at all to keep. With respect to the best modes of cooking, the recipe for sewing them up like asparagus, will certainly be found the fittest when fresh-gathered, and as long as the skin remains tender; but after long keeping, when that begins to harden, (almost into wood, as it does,) the most eligible form of cooking is to peel them as neatly and thin as possible, halve and quarter, or cut into eight, according to the size; throw into a saucepan of rapidly-boiling water (with a little salt and carbonate of soda, for fifteen or twenty minutes, then drain and squeeze gently, for they absorb an enormous quantity of water when peeled, and mash with butter, cream, pepper, and salt, exactly the same as turnip. Thus prepared, they form a delicious and substantial dish; and it will be found, that although they become (some of them, not all) a little stringy towards the last, their flavour is greatly improved by keeping.'

Directions to Bee-keepers for June.—Bees kept in hives or boxes on the improved system must now have additional room given them, in order to prevent swarming.—(see *Fam. Econ.* p. 47, vol. i.)

It is a good plan to keep a register, in order to see how long the bees are in filling the hive, and for comparison with future years. The following extracts from our calendar will shew the plan:—

1840.	'Hive No. 2.
May 22.	Opened right-hand side box.
„ 26.	Bees commenced work in ditto.
„ 31.	Opened left-hand box. Bees immediately begun their labours.
June 12.	Took away right-hand box. Weight of honey, 12 lbs.

A daily register of the weather will also be very useful. Be careful to give room in time, and to take away the side hive as soon as filled, or the bees may swarm. If they do so, return them to the parent stock by the plan recommended, p. 86, vol. i.

The inclement month of April of this year was very trying to bees, the early blossoms were retarded, and many bees perished through going abroad in the cold. Unless the stocks were well fed, the young brood must have suffered also. On this account, there will not have been many swarms before the present month, so that our directions for May must be again referred to.

Weak stocks may be strengthened now by having casts joined to them, either by the method given at p. 88, vol. i., or in the following manner:—On the evening of the day the cast is hived, as soon as the bees are all quiet, turn up the hive, and sprinkle the bees with syrup; then suddenly shake them out altogether upon a table; place the stock to which they are to be united above the mass of bees, and support it that none may be crushed; they will very soon become one stock. Late that night, or very early next morning, the hive must be placed where it is to remain. Many bee-keepers adopt this method with success. Casts may be joined together in the same manner so as to form a strong stock, instead of two or more worthless ones,

VARIETIES.

National Debts.—The national debts of the various countries of Europe are—England, £860,000,000; France, 320,000,000; Holland, £160,000,000; Russia and Poland, £110,000,000; Spain, £93,000,000; Austria, £84,000,000; Prussia, £30,000,000.—All the others are smaller sums; and the grand total is estimated at £2,000,000,000, on which the annual interest amounts to £100,000,000, besides £25,000,000 for expense of collection. The cost of the various armies, including armaments, is calculated at 2,800,000 men maintained at an annual charge of £120,000,000; if the men thus employed worked at any profitable labour, and earned 1s. 6d. per day each, the aggregate earnings would be £200,000,000 yearly. The charges for administration of governments, pensions, sinecures, is £25,000,000 a-year, and all this expense, in addition to the support of hosts of idlers, has to be borne by a population of 250,000,000;—thus, armies and police, 2,800,000, government officials, 2,000,000, idlers and unproducing classes, 20,000,000. These facts are given on the authority of a Brussels paper, and it is impossible not to be struck with the fact, how much good would result to this vast population, did every man obey the precept: 'Do unto others as you would that they should do to you.'

A Phenomenon.—A curious effect of absorption of light is stated in Hunt's *Poetry of Science*—'If a nasturtium is plucked during sunshine, and carried into a dark room, the eye, after it has reposed for a short time, will discover the flower by the light emitted from its leaves.'

Kind Words do not Cost Much.—They never blister the tongue or lips. And we have never heard of any mental trouble arising from this quarter. Though they do not cost much—1. They help one's own good nature. Soft words soften our own soul. Angry words are fuel to the flame of wrath, and make it blaze more fiercely. 2. Kind words make other people good-natured. Cold words freeze people, and hot words scorch them, and bitter words make them bitter, and wrathful words make them wrathful. There is such a rush of all other kinds of words in our days, that it seems desirable to give kind words a change among them. There are vain words, and idle words, and hasty words, and spiteful words, and silly words, and empty words, and profane words, and boisterous words, and warlike words. Kind words also produce their own image on men's souls. And a beautiful image it is. They smooth, and quiet, and comfort the hearer. They shame him out of his sour, morose, unkind feelings. We have not yet begun to use kind words in such abundance as they ought to be used.—*Pascal.*

Bad Sausages.—No person was ever known to die because he had only a quarter-of-a-pound of meat to dinner, but many die annually from eating bad sausages.—*Medical Times.*

A Hint for Housekeepers.—But few persons are aware of the advantages which may be obtained by simply lining the back and sides of an ordinary fire-place with fire-brick. Every body must have noticed that when a fire goes out, the coals at the side of the fire are left unburnt, whilst the centre is consumed. This arises from the cooling powers of the iron at the sides, and hence arises the complaint that you must have a large fire or none at all. With fire-brick, the whole of the fire however small, will be kept alight, an object of great consideration in spring and autumn; and even after the fire is extinguished, the fire-brick lining will continue to diffuse warmth for some time. A no less important advantage is, that less smoke is produced, and we may here remark on the absurdity of putting down smoke in factory chimneys, and leaving house chimneys untouched. If the smoke from all the chimneys, say in Russell-square, were combined and poured forth from one huge chimney, it would be voted an intolerable nuisance. As it is, it passes unnoticed. We have only to add that the expense of the alteration is a mere trifle.—*Artisan.*

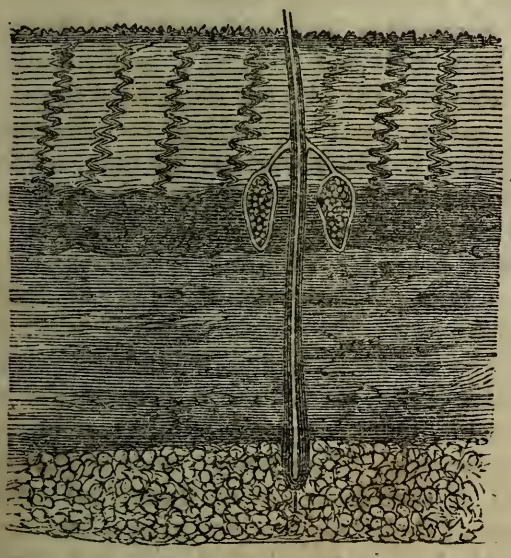
Social and Commercial Progress.—In 1801, the population of England and Wales was 8,872,980; in 1846, 21,487,000. The population of Scotland in 1841, was 2,628,957. In 1846, the consumption of imported articles was as follows:—Tea, 47,000,000 lbs.; sugar, 56,000,000; coffee, 36,750,000; tobacco, 27,000,000; cocoa, 3,000,000; tallow and palm oil, 179,000,000 lbs. In the same year, duty was paid on 24,000,000 gallons of British and Irish spirits, and on 42,000,000 bushels of malt, on 186,000,000 lbs. of soap; on 2,000 millions of bricks, and on 127,500,000 lbs. of paper.—In 1839, the letters delivered in the United Kingdom in one week were about one and a-half millions; in the same week of 1848, the number was six and a-half millions. In three months of 1839, money orders were issued by the Post-office for £90,000; in three months of 1848, the amount had risen to £3,500,000.

Morality without Religion.—He that has not religion to govern his morality is not a dram better than my mastiff dog; so long as you stroke him and please him, and do not pinch him, he will play with you, as finely as may be; he is a very good moral mastiff, but if you hurt him, he will fly in your face, and tear out your throat.—*Selden*

THE HAIR.

Among subjects likely to prove interesting and useful to readers of the *Family Economist*, we think the Hair may very properly find a place. And when it is considered that due attention to the natural covering of our heads, whether in male or female, conduces to health and comfort, as well as to ornament, there is reason to hope that the necessary information will be turned to good account.

It will first be desirable to say a word or two about the skin. No one needs to be told that he is covered with a skin from head to foot; but every one does not know that this skin consists of three coats or layers, lying close on one another. The outer one, that which we can see with our eyes, and rub with our hands, is called the *scarf-skin;* it is made up of a number of very small scales, which are always growing up from beneath, and always falling off. There is no feeling in it, we can shave off a thin slice without pain, as in cutting our finger-nails; and thus it serves to protect the under coats. The one next to the scarf-skin is a moist net-work, which contains the colouring matter; and below this lies the true skin, into which nerves and blood-vessels enter, whereby we become sensible of touch, and waste matters are thrown off from within the body. All of which facts, together with others to be presently noticed, will perhaps be better understood from the following cut.



Next to knowing that they have a skin, most persons know that hairs grow more or less numerously from nearly every part of its surface. These hairs have their roots in a layer of fat, which grows just inside of the innermost skin as described above. The roots consist of follicles, or sheaths, or as they are sometimes called, tubes; within which a fluid is deposited from the blood vessels. This fluid hardens into granules, or exceedingly small grains, which by and by form a cell: and thus as the blood-vessels continue to supply fluid, the hair grows and grows, until it gets through the skin, and at the same time takes up colouring matter, either light or dark, according to constitution, which is deposited at the root with the other fluid. In the centre of a hair, these cells are scarcely altered from their original structure, and they may be compared to the pith running up a stem of elder, or other soft wood. Outside of this they lengthen into fibres, which are the seat of colour, while the outer coating presents the appearance of polished scales, serving as a sort of varnish. Thus like the skin, a hair consists of three textures—loose and somewhat spongy in the centre, then a fibrous coat, and last a scaly covering. These scales are not placed in order as on fishes, but irregularly as shewn on the stems of certain plants. If we take a quill, and fill the space between the pith and barrel with straight threads, we should have a tolerably good representation of the structure of a hair. It is owing to the scales on a hair, that it feels rough when we draw it between our lips or fingers from point to root. Sections, or cross slices of hair, when examined with a microscope, are found to be oval and not circular, as is commonly supposed. In addition to what is here described, each hair is provided with a supply of oil, secreted, or taken up by oil-glands, which lie under the skin all over the body. The oil serves to protect and keep the skin in a healthy condition, and removes hurtful matters from the blood. It finds its way to the hair through a very small tube or tubes, passing from the gland to the hair tube, (as seen in the foregoing cut.) Such is the beautiful process by which the hair is nourished, and preserved in a moist and pliant condition; and except in cases of real disease or functional disturbance, there is no reason why it should be otherwise. Where disease exists, it will be found in the skin, as the hair itself is insensible.

Attention to cleanliness of the head is especially necessary, because the hair, chiefly on account of its scaly coat, is very liable to mat together. Each scale becomes as it were a clinging point for another; and for this reason hair admits so readily of being made into felt. But so much the more essential, is it not to neglect brushing and combing. Many persons at times are annoyed by an intolerable itching of the head, which proceeds from what is called *scurf* forming a hard coat upon the scalp. In such a case the hair is prevented growing with its usual freedom; and having to struggle its way through is the cause of the irritating sensation. Scurf is often looked on as an effect of disease which may be prevented; but a similar scurf is formed on every part of the body, by the scales of the scarf-skin, which, as before observed, are continually pushed off from the surface, yet without being generally visible. But the hair prevents their falling away at once from the skin of the head, and thus they accumulate in greater quantity than elsewhere, owing to the comparatively rapid growth of the hair; they become entangled, and if neglected, form a tough and close covering. The true remedy is to brush the head daily, and wash it frequently: scurf cannot be prevented, but it may be removed. Persons who have a dry head are more subject to this inconvenience than others; they have consequently a greater necessity to use the brush. Regular brushing from ten minutes to a quarter of an hour every morning, excites the skin, and causes the oil glands to pour out their contents; and in some instances, has been known to cure dryness of the air.

If hair were never cut, it would fall off or increase, according to the season, as with four-footed animals. The average thickness of human hair is the 400th part of an inch; that is, 400 hairs laid side by side, would measure an inch across. The hair of women, contrary to general belief, is coarser than that of men; in children it is always finer than in adults; different parts of the head however produce different thicknesses. Flaxen hair is said to be the finest, and black the coarsest; and as the hair changes to grey it becomes coarser. According to a German anatomist, a square inch of the skin of the head contains, of black hairs, 588; of chestnut, 648; of flaxen, 728. At the ordinary rate the beard grows from six to seven inches in a year; so that if a man live eighty years, he will in that period have mown away from twenty-five to thirty feet of hair. Instances of extraordinary growth have been sometimes met with: men whose beards swept the ground; and women with hair reaching to their feet; but the ordinary length for the latter is from eighteen to forty inches. Dark hair is said to be a sign of healthful and vigorous constitution; and it is generally found associated with a coarse quality of skin. This fact is more noticeable in animals than in man: white or grey horses are considered to be less powerful and serviceable than dark-coloured ones; and if a horse have white feet, these extremities are the most liable to disease.

Hair is a bad conductor of heat; and for this reason is one of the best coverings that could be devised for the head of man, or the bodies of animals; warmth escapes through it but very slowly; it is a defence also against the injurious effects of external heat, moisture, and electricity. Short hairs afford a protection to the ears and nostrils; and an effect of their general growth is to remove carbon and hydrogen from the system, a function which, if disturbed, may lead to serious consequences. An instance is on record of a lady having been cured of mania by the cutting of her hair; and the wearers of long beards have found relief from disease in shaving them off; the continual reproduction and removal carried away the irritating cause.

Sometimes hair makes its appearance where it is not wanted; as on moles. These can only be got rid of by a surgical operation, and according to Erasmus Wilson, to whose work we are indebted for information, the removal may be effected without difficulty or danger, or leaving a mark behind. This author condemns the practice of using depilatories, or hair-destroyers: they only remove what is above the surface, and being made up of quick-lime, soda, and a preparation of arsenic, there is a great liability of injury to the skin. The proper mode of getting rid of such hairs, or of those that grow out of their true line, in the eye-brows or eyelashes, is to take patience and pluck them out with tweezers.

Dry, or thin hair is said to indicate a scrofulous disposition, but ordinary cases

of dryness may be removed by the use of oil, or pomatum. It is of no use to attempt to prevent baldness as age comes on ; yet certain disordered states occasionally occur where the hair comes off altogether, or in patches, affecting even the eye-brows, and the cause is mistakenly attributed to ringworm. At times numbers of loose hairs come away in the brushing, or combing. Such cases as these will generally be found remedial. Wilson recommends men or women with short hair to dip their heads into cold water every morning, and afterwards apply the brush until a glow of warmth is felt all over the scalp. Those who have long hair are to brush it till the skin beneath becomes red, when a lotion is to be applied, as here specified.

Eau de Cologne .	2 oz.
Tincture of Cantharides	½ oz.
Oil of Nutmegs .	½ drachm.
Oil of Lavender . .	10 drops.

To be well mixed together.

Another is composed of:—

Mezereon Bark in small pieces	1 oz.
Horse-Radish root in small pieces	1 oz.
Boiling distilled Vinegar .	½ pint.

Let this infusion stand for a week, and then strain through muslin for use.

If irritating to the skin, these lotions can be made weaker, or less frequently applied than might otherwise be necessary. Either of them, or distilled vinegar alone, may be rubbed into a bald patch with a tooth-brush. The same lotions may also be used if the hair is disposed to become gray too early ; as they invigorate the apparatus situated beneath the skin, and enable it to take up colouring matter. Dyeing of the hair is a practice which ought never to be resorted to. Those who are unwilling or unable to discontinue the practice of applying some kind of dressing to the hair, should, at least, content themselves with a simple, yet good material. The best olive oil is most suitable for the purpose scented with otto of roses or bergamot ; the latter, as many persons know, is the essence of a species of mint. The same scents may also be used for pomatum which should be made of perfectly pure lard, or marrow. The hair is not rendered dry by the use of these scents, as is sometimes believed.

Although cases are on record of hair becoming suddenly gray in the course of a few hours, the statements must be received with caution. There are however well substantiated instances of the contrary fact ; of gray hair resuming its original brown or black hue, during disease, or a short time before death.

Hair is composed chemically of lime, common salt, silica, iron, manganese, oil, gases and sulphur, the unpleasant smell of burnt hair is principally caused by the latter substance. It will dissolve in water at a temperature of 230 degrees, and in chlorine gas turns to a sort of jelly. Salt in connexion with animal matter is easily affected by moisture, and this is the reason for hair getting out of curl in damp weather. But it is to the salt and metals combined that hair owes its lasting quality ; it is almost imperishable : numerous examples of perfect hair are found on mummies 2000 years old.

Were this the place, much that is interesting might be said about hair as an ornament—the different fashions it has assumed as a head-decoration. Of all fashions the present is one of the most neat and graceful ; and yet it is an old fashion. The drawing below, showing the mode of wearing the hair, prevalent over a large part of Germany, is precisely the same as that followed by Roman ladies a thousand years ago : it affords an appropriate termination to our chapter on hair.

THE DISHONEST FAMILY.

PART II.

It may be readily and justly supposed that if Jerry and Sally D— had so little concern to keep in the way of uprightness in their every-day dealings, they took no pains to teach their children the principles of common honesty. And we are very

sure that when the human heart is left uncultivated, and its evil tendencies unchecked, a harvest of vice will be pretty certain of ripening.

Jerry had four children, poor little neglected, untaught beings, even from their infancy ; for both father and mother, in their most prosperous times, were too intent upon gain to pay much regard even to the bodily welfare of their offspring, any further than supplying them with daily food. As to training them to love and obedience, this was not once thought of : and as to common education, it would be time enough, the father thought, to pay for schooling when they were older, and he should be better able to afford it. But instead of becoming richer, we have seen that he became poorer, and no more was said or thought of teaching either his daughter or his three sons, even the elements of reading and writing ; so they grew up grossly ignorant.

And when, ten years after marriage, poverty began to press upon the unhappy family, when Jerry had been compelled to mortgage his little farm to its utmost value, when the furniture of his cottage had been sold to pay an urgent creditor, and nothing was left behind but one or two flock mattresses, with a little wretched bed-clothing, an old deal table, and a few broken chairs ; when the live stock of the farm was reduced to one miserable cow ; and when the few acres of land were becoming almost as unproductive as a bare common, for want of good cultivation ; then was not the time to begin a new and a better course. No :—' the boys must look sharp, and be sharp, and so must the girl ; or they must soon turn out ;' such was the determination of Jerry, to which his wife unhesitatingly responded.

And the boys and the girl did ' look sharp,' as the whole neighbourhood found to its cost. In times gone by, neither Jerry nor Sally had been tempted into the common and vulgar habit of stealing ; they only *cheated ;* so far, at least, as anything could be proved. But now, it was to be a struggle for bread ; and no matter how it came, bread was welcome. It is needless to recount all the habits and acts of petty larceny—robberies of gardens, fields, and poultry-yards, which were put into practice to supply the table and the purse of this dishonest family. Unhappily, there are few country villages untormented with families like that of Jerry D—. Dishonesty is not the product alone of crowded cities and populous towns.

It was very provoking to the inhabitants of the little village in which Jerry D— dwelt, that their early vegetables and finest ripe fruit should be, month after month, and year after year, abstracted from their gardens, that outhouses should be incessantly broken into, and robbed of tools, coals, fowls, and rabbits. Gypseys and tramps were sometimes suspected of these depredations, and, it may be, occasionally with justice. Eventually, however, it was too well known that the greater part of the plunder found its way to Jerry D—'s cottage. More than once, the boys were detected in their roguery, and threatened with the jail ; but compassion for their youth and ignorance, and pity for the reduced parents, faulty as they were, combined with the trouble and odium connected with such prosecutions, secured the offenders from legal punishment. Thus they gradually grew up to be the terror of all around them, as essentially idle and notoriously dishonest, though, as yet, free from the taint of imprisonment for theft.

Meanwhile, it was a wonder to the whole village how the family of Jerry D— contrived to live ; and, indeed, it was very plain that, though every mode of petty dishonesty was put into requisition, they often suffered from positive destitution. The one cow which cropped the scanty herbage of their small meadow, seemed to be their only honest resource ; for the rest of the farm had, at length, passed into other hands, and no one would willingly employ the evil disposed lads, even had they been willing to work. Still, however, they lived on ;—the father, now a broken-down, unhappy, and ferocious-looking man, was sometimes to be seen working in his garden ; but oftener lounging about the village alehouse : the mother and her daughter, both slovenly, and both with countenances distorted by discontent and frequent quarrels, did little besides the necessary dairy-work imposed upon them by their solitary cow : the sons, now young men, were generally to be seen,

with slouching gait and in ragged habiliments, sometimes together, but oftener apart, in the fields or roads near their uncomfortable home. This state of things lasted some years, while almost nightly robberies of farm-yards and cottage-gar dens for a considerable distance around the cottage of Jerry D— continually increased the suspicions with which the whole family was regarded. There needed no more convincing proof than was daily exhibited by this family, that the way to domestic happiness and prosperity, does not run parallel with the path of dishonesty.

Either in consequence, or in spite of their roguery, things got worse and worse with the dishonest family, and, driven to desperation, they took to such courses as could no longer be winked at by their victims, and which hurried them to ignominy and utter ruin. The daughter, who frequented the nearest market-town with the indifferent produce of their dairy, one evening did not return at the usual time; and the next day, her parents learned that she had been detected in the act of stealing goods from a shop-counter. The shop-keeper, who had reason enough to believe that the young woman was an old offender, suffered her to leave the shop, as she supposed, unobserved, and then followed her and gave her in charge of a constable. The case was very clear; the unhappy girl was committed for trial; and at the next quarter sessions, was sentenced to transportation for the crime. About the same time, a considerable patch of clover was one night, cleared from a field not far from the cottage of Jerry D—, and it was proved to have been stolen by the second son, for the sustenance of the half-starved cow. The sufferer from this robbery had so often lost property in this way, that he would listen to no terms of compromise, and the county jail received the offender. When the term of imprisonment was ended, the youth commenced a reckless course of poaching, which speedily procured his conviction and banishment from the country.

The family now seemed doomed; doomed alas! by their own crimes, to entire degradation. It was with difficulty that Jerry D— had escaped sharing the punishment of his son; but the matter was not pressed against him. He did not take the new disgrace much to heart. A constant course of crime had made him callous to shame, and indifferent to the claims and feelings of parental affection. He still sauntered about his home, sometimes half-intoxicated, sometimes sober, but always disposed to quarrel with his diminished household, while he clung with determined grasp, to his old habits of deceit, and lived upon the proceeds of the more open dishonesty of his two remaining sons.

At length, a friendly hand was held out to save, if possible, one of the family. The farmer who had prosecuted the clover-stealer, offered employment to his younger brother; and the proposal was accepted. Habits of idleness and dishonesty were, however, too deeply rooted in his character to be removed by kindness. Labour was irksome to him. He was, moreover, found out in various petty peculations, and, after being more than once forgiven, was dismissed as incorrigible. He then joined a gang of gypseys, and, to the joy of the neighbourhood, was never afterwards known to revisit his native village.

About a year after this later occurrence, the cottage of Jerry D— was entered by a constable, armed with a search warrant, and accompanied by two or three stout assistants. The father and only remaining son were first secured; and on searching the cottage, ample proof was obtained of the guilt of both, and of confederacy on the part of the woman. They were tried for sheep-stealing: the men were condemned; but Sally escaped a verdict of guilty. The former were sentenced to transportation for life; the latter ended her days in the parish workhouse, a hardened and most incorrigible sinner; an instance, among many others, verifying the declaration, 'Though hand join in hand, the wicked shall not be unpunished.'

Reader, we have fulfilled our purpose; and our rapid sketch of a dishonest family contains, we think, its own lesson. It will not have been written in vain, if it should meet the eye—and meeting the eye, arrest the serious attention, of but one who may mistakenly fancy that the way to be happy and prosperous is to begin by being a knave.

THE VILLAGE BLACKSMITH.

Under a spreading chestnut tree
The village smithy stands;
The smith, a mighty man is he,
With large and sinewy hands;
And the muscles of his brawny arms
Are strong as iron bands.

His hair is crisp, and black, and long,
His face is like the tan;
His brow is wet with honest sweat;
He earns whate'er he can;
And looks the whole world in the face,
For he owes not any man.

Week in, week out, from morn to night
You can hear his bellows blow.
You can hear him swing his heavy sledge
With measured beat and slow,
Like a sexton ringing the village bell
When the evening sun is low.

And children coming home from school
Look in at the open door;
They love to see the flaming forge
And hear the bellows roar;
And catch the burning sparks that fly
Like chaff from a threshing-floor.

He goes on Sunday to the church,
And sits among his boys;
He hears the parson pray and preach;
He hears his daughter's voice
Singing in the village choir,
And it makes his heart rejoice.

It sounds to him like her mother's voice
Singing in paradise!
He needs must think of her once more
How in the grave she lies;
And with his hard, rough hand he wipes
A tear out of his eyes.

Toiling, rejoicing, sorrowing,
Onward through life he goes,
Each morning sees some task begin,
Each evening sees its close:
Something attempted, something done,
Has earned a night's repose.

Thanks, thanks to thee, my worthy friend,
For the lesson thou hast taught!
Thus at the flaming forge of life
Our fortunes must be wrought;
Thus on its sounding anvil shaped
Each burning deed and thought.

Longfellow.

CHAPTERS FOR BOYS.

RABBITS.—NO. II.

Food. — This is an important matter; rabbits eat a very great quantity; you must not think that because they are little animals, they require only a little food; they want much more than you do, in proportion to their size; and to give them proper kinds of food, in sufficient quantity, and at a low expense, constitutes the chief question as regards their profit. How often do we hear it said, and how generally true is the saying, 'Oh! my rabbits never pay, they eat their heads off,' &c., meaning that the expense of the food consumed, more than counterbalances the advantage gained. Now, this arises from want of knowledge. For the greater part of the year, rabbits may be kept almost entirely upon food procured from the fields or garden. Although green food is naturally the food of rabbits, yet, because when injudiciously supplied it scours, and gives them the rot, it is erroneously supposed that it must be almost entirely withheld. It is true, that if it be given to them in a wet state after rain, if it consist of one kind of vegetable only, or if it be of a watery kind, a bad effect takes place; but when the green food is given in sufficient variety, and with a small supply of good dry hay or oats daily, there is not the least fear in giving an unlimited quantity.

We fed our own rabbits during the past summer, entirely on green food, for several weeks. This principally consisted of carrot and parsnip tops, strawberry leaves, French bean pods in their unripe state, lettuces, groundsel, and other plants. Cabbage we use as little as possible, the rabbits do not much like it, and it is not very good for them.

We will now give a list of many of the vegetables that are *good* food for rabbits. All through the summer there will be an ample supply from the garden and hedges. Dandelion, groundsel, sow-thistle, dock-leaves, peas-haulm, lettuce; strawberry, raspberry, and currant leaves; carrot, parsnip, potato, and horseradish tops; all kinds of grasses, celery; French beans in the pod, vine dressing, apple parings, &c., &c. But we need not further enume-

rate, when there is scarcely any vegetable which rabbits will not eat; but before all other things they prefer parsley, carrot-tops, French-beans, bath-leaves, stalks, and pods.

As soon as the peas and kidney-beans have done bearing, let them be pulled up and given to the rabbits, together with all the pods not wanted for use. In the Autumn, when green food becomes scarcer, we give the waste scarlet-runner stalks, of which they are very fond; also the leaves which now fall in abundance from the apple and other trees; and when the garden supplies fail, there is generally plenty of marsh-mallows, docks, ground-ivy, and grasses from the hedges, to form an abundance of green food for some time longer.

In the winter, carrots, parsnips, swede and common turnip, together with brewer's grains, mixed with toppings or pollard, supply the lack of fresh vegetables. We never use grains in the summer, because they so soon turn sour and mouldy, and much better food can then be obtained.

We must not omit to tell you that rabbits like the young bark of trees; for this reason we supply ours in the winter with small branches and twigs, which they either strip or entirely consume. We throw to the young ones the prunings of vines, currant, apple, and other trees; except such as laurel, and evergreens said to be poisonous. Nibbling these twigs is excellent amusement for rabbits, and beside keeping them in health, serves as a portion of their food.

Here then, we have shown that there is no need for starving rabbits, when there is such an abundant variety of food suitable for them, and at all times to be procured. One writer observes, that when rabbits die, ninety-nine times out of the hundred, *starvation* is the malady. And particularly short-feeding the doe, while, and before she has young ones.

Feeding.—It is best to feed rabbits three, or even four times a-day, because when they are fed only twice during that time, a larger quantity of food must be given at each feeding, which is too often wasted. Rabbits appear to relish their food best when given in small quantities, and you will soon learn how much to give at each time you feed, so as to avoid waste and yet for the rabbits to have enough. The does must be well kept, as we have just said, both before and after they have young ones, or it is useless to expect their produce to be vigorous and healthy. A doe with a litter will eat twice as much as at other times, and must be liberally supplied with green food, and carrots and parsnips, raw, or boiled, as well as with oats and hay. A few days both before and after *kitting*, every evening, we give to our does, a few table-spoonfuls of gruel, made either with flour or oatmeal, and we find this a good practice, as the animal appears to suffer a good deal from thirst, about that period; care must be taken not to give this while it is hot, nor is it necessary to give much when there is an abundance of green meat. A little cold water, or milk may be given instead of the gruel, we have never found it to hurt any of our rabbits.

Young rabbits when they first come out to feed must not be allowed to eat the greens, with which the doe is supplied; but they may nibble at carrots, and other roots, and at the little twigs we have mentioned, and gradually be accustomed to partake of a more moist diet.

Breeding.—Rabbits begin to breed when about five or six months old, and will give seven or eight litters in the year, though it is better to allow them only to have five, as too frequent breeding is injurious. In thirty days after being with the buck, the doe produces her young. A few days before the time, some hay must be given to her, with which and the *down* she pulls from her fur, she will construct her bed. It is always a sign of the approaching birth of the young, when she begins to bite down the hay, or carry it about in her mouth, and to tear the *flue* from her body. There are generally from four to ten young ones, sometimes more, but it is far better when the doe has so many to keep only five or six of the finest, they will then grow up strong and healthy, and the doe will not be so much weakened as if all had been preserved. At the end of six weeks the young brood may be removed, and the doe and buck come together again. Great care is required during very severe weather, to prevent the young from dying with cold; and for this reason it is better to allow the doe to rest during the winter. The best breed-

ing rabbits are said to be those produced in March.

Like all other animals, rabbits degenerate when much breeding takes place among the same race, for a long period: this is called, breeding in and in. It is proper, therefore, to make changes from time to time by procuring a fresh kind to improve your stock. Rabbit fanciers pay some attention to this; but if it were made more a matter of science as it is with the race-horse, a very superior breed of rabbits might be produced.

Fattening.—There is no need to resort to any other method in preparing rabbits for the table, than to give them as much oats, carrots, and green food as they choose to take; if fattened with corn alone the flesh is not so juicy and relishing, as when they are also allowed an *unlimited* quantity of vegetables. They are in the greatest perfection from about three to seven months old, and about a month's feeding as advised will make them thoroughly fat, provided they have not been half-starved previously. The London poulterers exhibit fine specimens of fatted rabbits at Christmas, some we have seen weighing upwards of fifteen pounds; but it is not desirable to produce such over-fat animals, whether rabbits, or oxen, or sheep.

Diseases.—Rabbits are generally very healthy, and hardy. When due attention is paid to their food, to ventilation and cleanliness, few animals are less subject to disease; but as in all other cases filth, foul air, and damp, produce disease in rabbits. *Looseness*, which may be seen by the dung being too moist, must be remedied by dry food, such as crusts of bread, good corn, old hay, hard biscuit, or any food of a dry quality. The *rot* may be said to be incurable, at least we have found it so with young rabbits. The remedy must be looked for in dry hutches, fresh air and substantial food. The *liver complaint*, another disorder is said also to be incurable; but as it does not prevent the rabbits from fattening, the best course is to prepare those attacked at once for the table. *Snuffles* or *colds* may be cured by removing the rabbit from the damps and draughts, which have produced the disorder, to a drier and warmer place. It is much easier to *prevent* disease than to cure. Cleanliness, careful attention, dryness, and regular feeding in the manner we have directed, will in general ensure good health in the rabbits, and entirely prevent any of these diseases.

Profits.—Rabbits are really profitable. Three does and a buck will give you a rabbit to eat for *every three days in the year*, which is a very much larger quantity of food than any man will get by spending half his time in the pursuit of *wild* animals, to say nothing of the toil, the tearing of clothes, and the danger of pursuing the latter. When the amazing fecundity of the rabbit is taken into account, it will readily be seen that if the expense of food, and management can be kept low, a great profit may be obtained. It is said, that from a single pair of rabbits, the prodigious number of one million, two hundred and seventy-four thousand, eight hundred and forty, may be produced, in four years, supposing all the rabbits to live. We have shown how the least possible expense as to food may be attained, by pointing out the food which costs least, and yet is quite suitable for the animals; and there appears to be no good reason, why, a person living in the country who has a shed and a garden should not derive advantage from the keeping of rabbits, and when the care of them can be entrusted to a boy, the cost of management would of course be diminished. The value of the dung either for sale, or for the garden is considerable, as it is a very valuable manure.

A country cottager who kept rabbits, in a small house, similar to that we have described, gave the management of them to his boys, who carefully attended them and collected their food. Without diminishing his stock, he was able to kill annually between three and four hundred, and derived a good profit from their sale, besides having a rabbit occasionally at dinner for himself and the advantage of the dung for the garden; and this with hardly any expense, or trouble to himself.

Some years ago, a person in Oxfordshire, kept some hundreds of breeding does, in a small detached barn. He sent about three dozen rabbits weekly to London, but on account of the distance making the expense of carriage great, very little, if any profit was realised on the sale. But the dung produced was equal to one load a week, thirty-six bushels to the load, and sold for eight-pence a bushel.

A description of a large breeding-establishment has been given by Mowbray, which we shall now quote, ‘ Of late,’ he writes, ‘ one has arisen at Ampthill, Beds, upon a more extensive scale than ever before attempted, established by an agent of his Grace the Duke of Bedford. The building is situated upon an eminence, is square, somewhat resembling barracks, with a court withinside the walls, and with thirty acres of fine light land adjoining, under culture of those crops known to be best adapted to the nourishment and support of rabbit-stock. It was proposed to keep between four and five thousand breeding does, which number is probably now complete. The young rabbits from seven to nine weeks old, are sent to Newgate and Leadenhall markets, fifty to sixty dozen weekly. The quantity of dung produced, which is reserved with the utmost care, and free from any extraneous substances, must be considerable, and valuable.’

This business has since come to an end, not it appears from failure, but because the manager had other, and more important duties which required his attention. There can be no doubt that boys, in the country especially, where green food can be had for nothing, may make considerable profit by keeping rabbits, and thus be of some use to themselves and to their parents, instead, of being as is too often the case, a troublesome burden. We trust that they will *try ;* and put our instructions into practice.

GOVERNMENT AND PEOPLE.

As we are all prone enough to attribute whatever good we enjoy to ourselves, and all the evil that afflicts us to others, so government is apt to meet with rather hard measure from us. It is a good convenient creature on which to lay all the blame of national calamities and disasters, while we impute to our incorruptible selves whatever renders us great or prosperous. To hear many men talk, one would imagine that in place of the salutary fiction of our constitution, ‘ that the king can do no wrong,’ we had substituted another maxim not quite so innocent, ‘ that the people can do none.’ The political physician, at all events, has a far less enviable position than he to whom we consign the treatment of our bodily maladies. To this last our easy credulity gives all the praise of cure, and attaches none of the blame of failure. Does a patient recover? It is owing to the pre-eminent doctor’s pre-eminent skill. Does a man die? He dies in the course of nature, or by the visitation of God. In the other case it is exactly the reverse. Is the nation prosperous? It is owing to the virtues, the energies, the industry of the people. Is it miserable ? It is the corruption, oppression, neglect, rapacity of the government. The reasoning is about equally sound in either case, though the conclusion is different ; and in neither is it perfectly Baconian.—*Edinburgh Review.*

COTTAGE COOKERY.

BY ESTHER COPLEY—NINTH ARTICLE.

BREAD, CAKES AND BUNS.

Of all articles of household provision bread is the most important. It forms a principal part of daily food at all seasons of the year—at all stages of life, from infancy to old age, and under almost all circumstances and states of health. It is justly called ‘ the staff of life.’ There is no one other thing so absolutely needful to nourishment and health. Such being the case, it becomes a matter of great importance that bread should be good—that is, made of proper materials and in a proper manner. Every woman ought thoroughly to understand this business. And yet a great many do not ; it may, in fact, be said there are comparatively few who do. Though it is generally admitted that *good* home-made bread is almost preferable to ordinary baker’s bread, most people use only the latter from a notion

that making bread at home is a very mysterious and laborious business. Certainly among those who attempt it, there is often a miserable failure in the performance—and their ill-shapen, heavy, sour-smelling loaves, are an object of ridicule to the baker (if sent out to bake) and of disgust to the family condemned to eat them. Such need not be the case. We venture to say, not as a matter of theory, but as the result of actual and habitual experience, that by attention to the simple rules, about to be given, a family of any number may be provided with palatable and wholesome bread, with as great certainty, and scarcely more trouble, than they find in preparing their daily pudding.

General Remarks.—Material.—Wheaten flour is without dispute the most nutritious. What is called 'fine flour,' is seldom used except for fancy breads, and is not so wholesome as the coarser sorts. The flour commonly used for making bread is called 'seconds,' or 'household.' Proper brown bread is made from undressed wheat-meal. Whatever flour is used, home-made bread is not as white as baker's bread, because the latter is almost always rendered so by the use of alum, pearl-ash, or something of that kind, which, to say the least, is by no means agreeable or beneficial.

It is of great importance to have pure flour—that is, free from adulteration—really to have what is professedly sold. Those who would succeed in making good bread, must find a miller or mealman on whom they can depend for the genuineness of the article. Flour should be kept in a very dry place; if at all damp, it soon becomes sour and unwholesome; it should be covered over, to preserve it both from dust and vermin. It is the better for being kept a month or six weeks after grinding, for this reason, some people keep two flour tubs, and have one filled as soon as they begin to use the other.

Oatmeal, when it can be depended on as pure and good, answers very well for mixing with flour. For this purpose fine (not Scotch) oatmeal should be used. One-third oatmeal, with two-thirds flour, will form an agreeable and very wholesome bread.

Barley is sometimes used for bread; it is coarse and not so satisfying as the better sorts of grain. Rye alone makes very clammy bread. A cheap and good bread may be made of wheat, rye and barley, in equal parts, to be mixed with milk.

Potatos are frequently used in bread, almost universally so by bakers, and mixed in proper proportions with flour, they make the bread light and pleasant. They are often used as a matter of economy—that can scarcely be thought of at present, nor indeed for the last two years—but when potatos are plentiful and cheap, some people make their bread with an equal weight of potatos and flour. Two-thirds flour and one-third potatos is a better proportion, or even three-quarters flour and one-quarter potatos.

Rice and sago are sometimes used in making bread; rice soaks up a large quantity of water, and greatly increases in weight, hence it is that rice is found profitable. The price per pound being much more than that of flour, it would not answer, unless it more than doubled its own weight by the quantity of water it absorbs. One-sixth part of rice is a good proportion—that is, whatever quantity of rice is used, there must be five-times as much of flour. The rice properly managed (as will be presently directed) will bring the bread to a greater weight than seven parts of flour without rice; thus, ten pounds of flour and two pounds of rice will produce a greater weight of bread than fourteen pounds of flour alone.

Sago is used in the same manner as rice, it is considerably lower in price (thus when best rice is 5d., best sago is 3d. or 3½d.) It does not add an equal proportion in weight, but is liked by some people on account of its flavour, and moist quality, which it retains a considerable time. Though in this particular all home-made bread has an advantage over baker's bread, which is stale at three days old; and the whiter it is, the sooner it becomes harsh and dry, but good home-made bread will keep fresh and moist a week or more.

Fermentation or Raising.—The common method of raising bread is by means of yeast. The best yeast is whitish, solid, and free from liquid at top. The yeast from beer of moderate strength is preferable to that of very strong beer; it answers all good purposes, and is less apt to be bitter. Yeast should be used fresh; if it be kept long, the fermentative power is lost, and it soon becomes putrescent; it can seldom be kept good beyond a week, and is better

the first three or four days than the last ; if kept at all, it should be in a cool moist place, as a cellar. Yeast is sometimes said to be 'bitter,'—to impart a perceptible and disagreeable bitterness to the bread. If this bitterness be produced from hops only, it may be cured by straining the yeast through bran ; or by dipping into it a piece of red-hot charcoal ; or by covering it with fresh spring water, which, after standing two or three hours, is to be poured off, and fresh water added. So continue changing the water from time to time, till the yeast is wanted for use. This method must not be carried on too long, or it will weaken the fermentative power of the yeast. Yeast that is bitter in consequence of the beer being drugged, cannot be cured by these methods, nor probably by any other. Within the last few years, a method of raising bread without yeast has been pretty extensively adopted. The desired end is effected by the use of chemical preparations, such as carbonate or bicarbonate of soda, and muriatic acid, or by ready prepared combinations of those articles, or others of like properties. Some persons constantly use these preparations, and altogether give up the use of yeast ; others for ordinary use, prefer good yeast, when it can be readily obtained, but reckon the bread-powders very convenient for occasional use ; and for cakes really preferable to yeast. These powders must be kept in an extremely dry place, or they soon lose their virtue.

Salt.—A portion of common salt is used in making bread, more or less is a matter of taste ; from two to three ounces to a peck of flour, is the ordinary proportion. When the baking-powders are used, a smaller quantity of salt suffices ; and with soda and muriatic acid little or no salt is added, because the combination of those articles produces what is chemically called muriate of soda, or common salt.

Liquid.—Yeast bread should always be mixed with water or other liquid a little warm—that is of a pleasant warmth to a delicate hand, by no means either hot or cold. Milk makes the bread eat short and pleasant, but causes it to become dry and harsh sooner than if mixed with water only, or with water of rice, bran or sago ; it is not generally used, except in small bread intended for immediate use. If rice or sago be used in bread, the liquor in which these are boiled serves well for mixing. Bread is greatly improved, and some saving effected, by the use of bran-water thus prepared—bran, one quart ; water, one gallon ; boil till reduced to three quarts, strain, and when reduced to a proper warmth, use for mixing. N.B. The bran will serve as food for poultry, rabbits, or pigs, or for manure. Bread raised by the chemical substances above-mentioned, is always to be wetted with cold liquid.

Baking.—In some parts of the country where wood-fuel is easily obtained, most houses are furnished with a brick oven. The quality of bread greatly depends on proper management in heating the oven. It is requisite that the fire be strong, brisk, and uniform, and that the oven be so equally heated in every part as to keep up a sufficient heat the whole time required to complete the baking. The oven-door should be made to shut very close, and, as much as possible, be kept closely shut, that no draught of air may be admitted. While the oven is heating, the door must be opened frequently for the purpose of stirring and moving about the fuel, but this must be done as quickly as possible, and the door instantly shut. The same quickness must be observed in sweeping out the fire and putting in the loaves ; and when once they are in, the oven should be opened no more until they are done. For this reason, other things that require a shorter time, or attention in the way of turning, &c. should not be put in till the bread is taken out ; and the oven, if properly managed, will then be sufficiently hot for baking them ; if not, it would be better to renew the heat by a little fresh fuel, than to risk spoiling the bread for the sake of baking other things at the same time.

The fuel for heating an oven should be very dry, and such as will heat through quickly. The stalky part of furze, and the brush-wood of faggots answer the purpose best. If larger wood is used (such as beech spokes and billets) they should be split in pieces about the thickness of a spade-handle. Coals are altogether improper ; so also are all knotty roots or green wood. From one hour to an hour and a-half is the time required for heating an oven ; nothing but experience can give aptitude and exactness in determining the proper heat ; when this is attained, every

thing should be placed quite ready, that the business now to be proceeded with may be accomplished in the least possible time. Take out the fire, sweep the oven very clean, by means of a rag mop fastened to a long handle. Put in the loaves with a peel, that is, a flat shovel with a long handle ; it must be dusted with flour, between each time of putting in a loaf. Yet the whole operation of taking out the fire, cleaning the oven, putting in the bread, and shutting the door, should not take up five minutes ; as much less as possible. The heating of an oven costs from six pence to a shilling, according to its size, and to the price of fuel ; neighbours can generally accommodate each other, and thus a saving is effected to all parties. But, observe, the longer the time elapses between the heatings of an oven, the longer it takes to bring it to a sufficient heat.

Persons who live near to an honest baker may find it quite as economical to send their bread to his oven ; the usual charge is a half-penny a loaf. The dough must be covered with a flannel or thick cloth, and carried very quickly, as the cold air checks its rising.

Those who neither have a regular oven, nor live near to a bakehouse, may manage very well with an American oven, or a side-oven to a Yorkshire grate, or both those ovens at once, which will economise fuel. But observe, a good fire should have been made up long enough before-hand to heat the side-oven, and the American oven should have been placed in front a few minutes, to become hot before the bread is put in ; and a good fire must be kept up the whole time of baking. For, if once the process slackens, an injury is done which no subsequent heat can remedy ; and, more or less, as the fire has been neglected, the bread, when it comes to be used, will seem insufficiently baked—'*puddingy.*' Two hours suffice for a quartern loaf. Bread baked in a side-oven, or American oven, will require looking at occasionally, and perhaps turning.

One more preliminary remark. The vessel in which the mixing and kneading is to be done should be placed at a convenient height, so as to give full command to the arms ; and the quantity of flour had better not be too large. Many people work up half a bushel at once or even more, but some experienced bread-makers find it better to knead a smaller quantity at once ; and certainly those who are not much accustomed to the business, will find a small quantity so much more manageable than a large one, that they may be recommended to begin with a half-peck, rather than a peck ; as the larger quantity takes full twice as long to knead as the smaller, there is no loss of time in dividing and doing it at twice. The kneading-vessel may be a wooden trough, or a pan, or platter ; a Nottingham ware milk-pan is very convenient for the purpose ; it should be large enough to allow plenty of room for moving about the hands, without danger of scattering over the flour.

Particular Directions—To Make a Half-Peck Loaf.—Half-a-peck of flour, half a small tea-cup full of yeast, a dessert-spoonful of salt, and three pints of water, will produce eight pounds twelve ounces of good bread ; this will be the proper stiffness for baking in tins. If the bread is to be baked on the oven bottom, rather less water must be allowed, or the dough will not keep in shape.

Put the flour into the kneading vessel ; with one finger make a hole in the middle, put in the salt, strain the yeast into the hole, through a very small colander or gravy-strainer of zinc or tin, or a coarse horse-hair sieve, adding a little of the intended liquor to carry the yeast through, then add the liquor, and knead it well ; if properly done, a few minutes will suffice for this operation, and the whole heap will be completely mixed and formed into a tough dough. If the bread is to be baked in tins, have them close at hand, and slightly greased to prevent sticking. Put the dough into the tins, each one about half full ; cover up, and set them in a warm place to rise. From two to three hours will be a good time for the rising, before setting into the oven.

If to be baked without tins, the whole lump of dough may be set to rise in one, and so remain until just before going into the oven. Then divide into twice as many pieces as you mean to have of loaves, one-half the number being rather smaller than the others. Turn these pieces round in the hand (like dumplings) but do it lightly, and touch them as little as may be ; lay the smaller pieces at top of the larger, and get them into the oven quickly. If given out to be baked, the

dough is usually sent in one lump, and the baker divides it into loaves.

Brown bread requires a *little* more yeast and a *little* more liquor, than that made of finer flour. Observe, brown bread is often recommended by medical men. When used as a matter of health, almost the only chance of succeeding, is by procuring the undressed meal, and making the bread at home. If bakers are applied to for brown bread they generally produce it by merely taking a portion of the regular dough, and sprinkling among it as much bran as will bring it to the colour required.

If potatos are to be added, let them be well boiled or steamed. Then mash or rub them through a colander, and well mix them with the flour, by rubbing together with the hands ; and proceed with the salt and working as above. The dough must be rather stiffer than if only flour were used. Say, for example, half-a-peck of flour, and two pounds of potatos, will require only the same quantity of liquid as the same flour without potatos.

If rice is to be added, boil it thoroughly, in the proportion of a gallon of water to one pound of rice. In boiling, the liquor will reduce to the quantity required ; rub the rice in with the flour, and when the liquor is of a proper coolness, proceed with salt, yeast, and mixing as above.

Unfermented Bread.—That is, bread raised with the chemical powders. To half-a-peck of flour, add seven dessert spoonfuls of the powder, and a little salt ; rub well in with the flour, then wet with *cold water ;* it may be mixed with the hand, or with a spoon or knife, but must be done lightly and quickly ; one minute is enough to mix it well ; it requires no kneading, but should immediately be got into the oven. This kind of bread should be made wetter than yeast bread :—say, stiffer than batter, but wetter than pie-crust ; much too stiff to pour, but not stiff enough to roll.

Bread-cakes (in some parts of the country called bake-house cakes) to be eaten with butter either hot or cold. From the common bread dough take a piece, or as many pieces as may be required, and as the oven will hold, the size of a large dumpling : drop them, a considerable distance apart, on the tray of an American oven. Let the tray stand in a moderately warm place—if in the oven, at a considerable distance from the fire—until the dough has risen well ; then bake it directly.

Oxford Tea-cakes.—To each pound of flour, allow a dessert-spoonful of bread-powder, one egg, and half-a-pint of cream, or new milk, half a tea-spoonful of salt, and two tea-spoonsful of loaf sugar powdered. Rub the dry things well together, then quickly mix in, first, the cream, and then the egg ; bake quickly on buttered tins. N.B. If yeast be preferred, the milk should be a little warmed, and strained through the yeast as for bread ; add the egg last. Let the dough stand to rise, then bake half-an-hour in a quick oven.

Bath-rolls.—Dry before the fire half-a-quartern of fine flour, rub into it a tea-spoonful of salt, and a large table-spoonful of bread powder.

Rub with the hand to a cream, a quarter-pound of butter, or melt it over the fire, taking care that it does not oil ; to this add three or four ounces of loaf sugar powdered (a little powdered cinnamon or allspice may be added or omitted at pleasure, also five or six drops of tincture of saffron) mix these things well together, then add to them the flour, &c., and wet with cold milk. Bake on buttered tins in an American oven ; or it otherwise, in a quick oven ; when nearly done, wash over the top with milk, and scatter loaf sugar sifted.

Dripping - Cakes.—Dripping three-quarters of a pound ; moist sugar, six ounces ; flour, two pounds ; salt, one tea-spoonful ; bread-powder, a large table-spoonful. Melt the dripping, mix well the sugar with it, then add the flour and bread-powder ; wet with cold milk, and bake immediately.

Very Nice Buns.—Flour, three pounds ; bread-powder, two heaped dessert-spoonsful ; salt, half tea-spoonful ; rub well together.

Melt, or work with the hand to a cream, a quarter-pound of butter ; add thereto and mix well a quarter-pound of sugar, either loaf or fine moist ; currants, six ounces (or caraway seeds half an ounce) and a little spice ; then add the flour, &c. ; wet with cold milk. Drop on the tray of an American oven, in bits, the size of a very small dumpling, leaving plenty of room between ; bake immediately.

A Good Family Cake.—To each pound of flour, six ounces of dripping, lard or butter, the same of currants, one ounce of candied peel cut small, a quarter-pound of

moist sugar, dessert-spoonful of bread-powder, half a tea-spoonful of salt, a little spice, (caraway seeds, if preferred to currants, quarter of an ounce,) and one egg. Melt or rub the fat to a cream, then add all the enriching ingredients, excepting eggs; mix well; next the flour and powder; wet with cold milk, leaving it stiff enough to receive the eggs, which add last of all; do it quickly, and bake immediately in a buttered tin. N.B. This plan may be adapted to any variety of richness. Only observe the order of mixing: 1st, melt fat; 2nd, add enriching ingredients; 3rd, flour and powder; 4th, milk; 5th, eggs; 6th, bake directly.

SWISS METHOD OF PRESERVING BUTTER.

[Dr. Forbes, an eminent London physician, has recently published an account of his tour in Switzerland, under the title of *A Physician's Holiday, &c.* Among other interesting matter we find the following account of the way in which butter can be kept without salt, which we think well worthy the attention of such readers of the *Family Economist* as keep cows. We may explain that the word *chalet* which occurs once or twice, signifies a mountain-dairy.]

It is a singular fact, and one I could not bring myself to believe, until I had it confirmed to me by repeated testimony, that the whole of the butter produced in any one of these Alpine pastures, is preserved sweet, or at least, perfectly fit for use, through the whole season, *without any admixture of salt.* The following is the way in which it is treated:—A narrow deal board, not more than four or five inches wide, is fixed horizontally in an open place in the dairy of the chalet; wooden pins, from two to three feet in length, are fixed in an upright position into this, their whole length projecting above its surface. As the butter is made it is placed daily around these pins (one at a time) beginning at their lower end, and in a mass not exceeding at first the width of the board. Every day as more butter is made, it is added to the previous portion around the pin, the diameter of the growing mass being gradually enlarged *upwards*, until the upper surface overhangs the base to a considerable extent, like an inverted beehive. When one pin is filled, another is proceeded with in like manner, and so on. The exposed surface of these masses gets soon covered with a sort of hard film, which effectually excludes the access of the air; and this circumstance with two others—viz.: the complete expression of milk from the butter, and the unobstructed circulation of a cool mountain-air through the chalet,—will go far to explain how butter so treated can remain so long without becoming spoiled.

I should like this experiment to be tried in some of our English dairies. The Swiss manipulators had no doubt of the trial succeeding, provided all the above-mentioned requisites of complete expression of the milk, a low temperature and a free circulation of air, were obtained.

It is very probable, that if the butter thus preserved, from June or July to October, were then made use of as the supply for the daily breakfast, it might not be found exactly *good*, according to our acceptation of the term, as applied to so delicate an article of diet; yet there can be no doubt that butter so treated is preserved from all putrescency; and it is from it that the whole winter store of the inhabitants of Switzerland is obtained.

The mode of preparing this *winter store* of butter seems to me much more important; and I will here describe it in detail, as I believe it is little known in England, and ought to be more so. I refer to what is called in the Valais and in Piedmont *boiled butter* (beurre cuit,) the form in which this article of diet is universally used, at least for all purposes of cookery.

In looking at the horrid compound sold in England as *salt butter*, at least the cheaper sorts of it used by the poorer classes, I cannot but believe that its supercession by the boiled butter of Switzerland would be advantageous both to the comfort and health of a large proportion of our countrymen. It can hardly be believed that such an offensive, briny, and semi-putrid mass as the cheaper sorts of our salt butter, can be without serious detriment to the health of the consumers, any more than the salted meat formerly issued to our seamen was so. The only

difference in the two cases, is the comparative quantity consumed in each case: in itself I am disposed to regard the rancid butter as the more unwholesome of the two. The boiled butter while infinitely more palatable, is neither saline nor rancid, and, consequently, is calculated to be more easily digested, and to produce a more wholesome material for absorption into the system.

I give the receipt for the process of making the boiled butter in the words I took it down from the mouth of my guide from the valley of Entremont, with the addition of some little variations in the process, as I obtained them from others learned in the same art.

Formula.—Into a clean copper pan (better, no doubt, tinned) put any quantity of butter, say from twenty to forty pounds, and place it over a very gentle fire, so that it may melt slowly; and let the heat be so graduated, that the melted mass does not come to the boil in less than about two hours. During all this time, the butter must be frequently stirred, say once in five or ten minutes, so that the whole mass may be thoroughly intermixed, and the top and bottom change places from time to time. When the melted mass boils, the fire is to be so regulated as to *keep* the butter at a *gentle boil* for about two hours more, the stirring being still continued, but not necessarily so frequently as before. The vessel is then to be removed from the fire, and set aside to cool and settle, still gradually; this process of cooling being supposed also to require about two hours. The melted mass is then, while still quite liquid, to be carefully poured into the crock or jar in which it is to be kept. In the process of cooling, there is deposited a whitish cheesy sediment proportioned to the quantity of butter, which is to be carefully prevented from intermixture with the preserved butter. These cheese-like grounds are very palatable and nutrient, and are constantly used as food. As might be expected, there are some variations in the process in the practice of different individuals. One very experienced man assured me, that a much shorter time than two hours need elapse between the setting of the vessel on the fire, and the period of bringing the butter to the boiling point. Another said, that the time should bear some relation to the quantity of materials used—an average period of ten minutes being allowed for every pound. The same party told me, that if the butter employed was not quite sweet, the addition of a slice of bread and a slice of onion will remove this; and also that the appearance of the *grounds* rising up to the top when the mass is stirred, is itself a proof that the coction is sufficient. My guide at Chamouni told me, that his wife usually added a small portion of salt to the mass, in the early stage of the boiling. Every body agreed in asserting that butter so preserved will last *for years* perfectly good, without any particular precautions being taken to keep it from the air, or without the slightest addition of salt. Indeed, I myself, tasted more than once butter so prepared full twelve months after preparation, and found it without the slightest taint. It wanted the flavour of fresh butter, but seemed to me infinitely more palatable than our coarse salted butter. This boiled butter, however, is not commonly used even in Switzerland as a condiment with bread, as fresh butter is, but merely as an article in cookery, for which purpose it is said to be even *better* than perfectly recent butter. I saw, at the Hotel d'Angleterre in Chamouni, the very jar out of which all the butter used in the kitchen was taken; and certainly it would not be easy to find more delicate cookery than we here met with.

RECIPES.

We are sometimes told that as there are many persons in this country who have no means of buying meat, we ought to publish some instructions for preparing cheap dinners, which people so circumstanced might make use of. Our pages already contain many valuable hints in this respect, and we now give the following recipes as recommended by the celebrated Count Rumford, who exerted himself actively for many years in endeavours to increase the comforts of the poor.

Potato-Puddings.—1. Mix together twelve ounces of boiled mashed potatos, one ounce of suet, one ounce (a sixteenth of a pint) of milk, and one ounce of cheese.

The suet and cheese to be melted or chopped as fine as possible. Add as much hot water as will convert the whole into a tolerably stiff mass ; then bake it for a short time in an earthen dish, either in front of the fire, or in an oven.

2. Twelve ounces of mashed potatos, one ounce of milk, and one ounce of suet, with salt. Mix and bake, as before.

3. Twelve ounces of mashed potatos, one ounce of suet, one ounce of red herring chopped fine or bruised in a mortar. Mix and bake.

4. Twelve ounces of mashed potatos, one ounce of suet, and one ounce of hung beef grated or chopped fine. Mix and bake.

Potato-Dumplings. — Half boil any quantity of potatos, peel, and grate them on a coarse grater ; mix with one-sixteenth of the weight of flour ; add a seasoning of salt, pepper, and sweet herbs, and enough of boiling water to make the whole into a stiff paste, which is next to be made into dumplings about the size of a large apple. Roll the dumplings in flour, so as to prevent water from soaking into them, then put them into boiling water, and boil them till they swim, which is the sign of their being done, and ready to be eaten.

The flavour of these dumplings may be improved by the addition of grated beef, or pounded herring.

FEMALE EDUCATION.

All circumstances well examined, there can be no doubt Providence has willed that man should be the head of the human race, even as woman is its heart ; that he should be its strength, as she is its solace ; that he should be its wisdom, as she is its grace ; that he should be its mind, its impetus, and its courage, as she is its sentiment, its charm, and its consolation. Too great an amelioration could not be effected, in our opinion, in the system generally adopted, which, far from correcting or even compensating the presumed intellectual inequality of the two sexes, generally serves only to increase it. By placing, for example, dancing and needlework at the extreme poles of female study, the one for its attraction and the other for its utility, and by not filling the immense interval with anything more valuable than mere monotonous, imperfect, superficial, and totally unphilosophical notions, this system has made of the greater number of female seminaries, establishments which may be compared alike to nursery-grounds for coquettes and sempstresses. It is never remembered that in domestic life conversation is of more importance than the needle or choregraphy ; that a husband is neither a pacha nor a lazzarone, who must be perpetually intoxicated or unceasingly patched ; that there are upon the conjugal dial many long hours of calm intimacy, of cool contemplation, of cold tenderness ; and that the husband makes another home elsewhere if his own hearth offers him only silence ; or what is a hundred times worse, merely frivolous and monotonous discourse. Let the woman play the gossip at a given moment, that is all very well ; let her superintend the laundry or the kitchen at another, that is also very well ; but these duties only comprise two-thirds of her mission. Ought care not to be taken that during the rest of her time she could also be capable of becoming to her husband a rational friend, a cheerful partner, an interesting companion, or at least an efficient listener, whose natural intelligence, even if originally inferior to his own, shall by the help of education have been raised to the same level.—*Newspaper.*

[Very true : but how few husbands take the necessary pains to deserve such a wife as the anonymous writer indicates above.—Ed. *Fam. Econ.*]

FAMILY SECRETS.

THE ECONOMICAL GRATE.—BY MARTIN DOYLE.

Miss Penelope Jenkins is a very economical maiden lady, and 'knows what's what,' as well as most people. Indeed, I scarcely knew her equal for making bargains, and if I wanted to collect a store of remnants of calicoes, white and coloured,

of ribbons, satin, gauze, and lutestring, of handkerchiefs of all sizes, materials and colours, cotton-reels, Whitechapel needles, &c., or of any articles within the range of her experience and judgment, I should be anxious to obtain her services as my agent in making the purchases, for I am certain that a shilling in her hands would be more easily expanded to thirteen or fourteen pence, than in those of any other economist of my acquaintance. Miss Jenkins has also a correct taste in articles of female dress or furniture, and I have never remarked upon her an unbecoming cap or bonnet, or ill-chosen trimmings to them. Take her with you to an auction of furniture, and she will bid and buy in for you, with a degree of cleverness which long experience, combined with intellectual acuteness, has enabled her to attain.

It happened that I was present in a small country town at an auction of books and furniture, at which a spirited competition was proceeding for the possession of an economical and genteel grate, as the auctioneer described it. I have its minute form and proportions at this moment in my mind's eye. Indeed, I have reasons for remembering them precisely—reasons to which I cannot revert in imagination, even after the lapse of many months, without a sensation of shivering. This grate was of cast metal, and a highly ornamented affair. It presented a medium average breadth of eight inches between its side pillars, (which terminated on claws resting on a metal platform which was supported by dog-irons of polished steel,) and had lozenge-formed bars, displaying seven apertures, of which the two centre ones alone gave any distinct view of the fire within. A moulded balustrade surmounted the upper cross bar, which was exactly four and a-half inches above the lower parallel bar. The sides were of corresponding mouldings. The back part alone, which was designed to stand against the rere wall of some sooty chimney, was, excepting a consequential looking battlement on the top, a plain sheet of metal which, as if unfit company for the sides and front, and unwilling to come forward, was to place its back closely to the wall, about thirteen inches from the genteel-looking front. It reminded me of a vulgar man conscious of his unfitness for the well-bred and well-dressed society of a drawing-room of *real* ladies and gentlemen, sneaking into a corner, or behind a door, to keep aloof from the company with which, by some chance, he finds himself associated for the moment, to his own confusion, if he have *modesty;* which, by the way, a very vulgar ill-bred man has not.

Miss Jenkins had bid nine shillings and three-pence for the grate in question. Mrs. Tomkins was regarding it, by stealthy glances, rather anxiously; Miss Jenkins was trying to look as if she did not want it, and said it was a paltry shabby concern to the persons around her, not worth more than a very few shillings, &c., &c. Both these ladies telegraphed the auctioneer from time to time by an almost imperceptible movement of the head or the lips, or a motion of the fingers, and so slyly and cleverly was this communication carried on between the man with the hammer and Miss Jenkins more particularly, that few if any of the bystanders would have perceived that she was bidding at all. The bids had swelled to 14s. 6d., which sum was Mrs. Tomkins' *bid.* Miss Jenkins flushed indignantly. 'I will go no further,' said she, 'it's monstrous—let them that's fool enough to buy it, have it.' Mrs. Tomkins flushed with triumph, though she had some misgivings as to the intrinsic merits of the grate. She wheeled about, Miss Jenkins threw out one little sparkle from the corner of her left eye towards the hammer—going, going, gone—*fifteen shillings*, Miss Jenkins. Mrs. Tomkins protested but in vain. The auctioneer had in fact a liking for Miss Jenkins, and had stretched his powers a little to gratify her longings in this instance. He declared that he thought Mrs. Tomkins had declined, &c., &c., and offered to put up the article again; but Mrs. Tomkins was in a passion, and talked of foul play, and retired in dudgeon from the field of contest. Miss Jenkins now declared, that the 'paltry shabby concern,' was 'a beau-ti-ful grate'—'a perfect love of a grate'—Oh, Penelope Jenkins, how could you have put on such a double face, and exercised such a double tongue?

I lodged afterwards with Miss Jenkins, who was to supply me with board and *fuel* at discretion; that is to say, at *my* discretion, not at *hers*, which would have

been, I suspect, of very contracted limits, and oddly enough the pretty economical grate was placed in my sitting room, and became my companion during some of the coldest months of a very cold season. It occupied a deep open gaping chimney, which always looked miserable for want of a fixed register grate of a very different construction from that of my economical grate. This, indeed, has been to me the occasion of more bodily misery than I ever before experienced. It gave out no *heat*. How could it, with so limited a front, and that guarded by thick bars of metal? The back part of the chimney was no doubt well-warmed, and any animal actually *in* the chimney directly over the economical grate would have been well warmed; but I could not perch myself *there*—and in the position in which I actually sat, that is crouching as closely to the front of the grate as possible, with my feet on the fender, and the poker continually in my hands, I derived no warmth from the heat which every fresh poke sent up the chimney. But who cares whether I was warmed or not? My intention is merely to draw attention to the fact, that pretty looking articles are often worse than useless, and that what is designed for *economy* often proves to be a source of *waste*.

It was so in the present instance. Penelope Jenkins, instead of putting up a fixed register grate made on philosophical principles, capable of giving out a great deal of heat with comparatively little coal, used, while I was quivering over 'the love of a grate' and grumbling perpetually, half a ton of coals (at 32s. per ton) more than would have sufficed to keep me in comfort, health, and good humour, if a different kind of grate had been provided for me.

Besides, Miss Jenkins has lost a lodger by her economical grate. I could not bear the want of warmth—my very intellects were becoming frozen up. I gave warning—I departed—and no one else has supplied my place in front of the economical grate. And assuredly Mrs. Tomkins will not recommend a new lodger to Miss Jenkins.

What a creditable affair too it would have been to Miss Jenkins, if I had remained at her house, dating from it papers for '*The Family Economist.*' This would have attracted attention to her and her house, (I say it of course without vanity,) and insured her lodgers during the term of her natural life. This has been altogether a mistaken economy.

GARDENING AND RURAL AFFAIRS.

SUMMER HINTS TO YOUNG GARDENERS.

Mr. Loudon in his valuable *Encyclopædia of Gardening*, often intersperses his scientific remarks and practical directions with hints of a moral and prudential kind, and such as tend to general improvement. The following are worth notice; and though especially addressed to young gardeners, may be useful in setting other young people thinking whether there is not something in *their* business by which they can gratify or accommodate a neighbour, who may be able to impart to them useful instruction or helps to knowledge in return. Mr. Loudon's hints shall be followed by simple, yet interesting facts, by way of example.

May [*Remarks*].—'The human animal, in common with most others indigenous to our climate, is generally in high spirits and vigour during this month. Woe to the young gardener who exhausts his spirits in any other way than in self-improvement.'

July.—'The young gardener should now devote a considerable portion of his time to collecting and drying specimens, duplicates and triplicates, in order to acquire a stock to exchange with brother gardeners or naturalists; or with booksellers, apothecaries, students, schoolmasters and clergymen, for the *loan of books*, or for *aid and instruction in study*.'

August.—'Insects, especially the winged tribes, now abound, and the young gardener should be assiduous in collecting them, for the same object as he collects specimens of plants. By carrying a small box in his pocket, he may pick them up while at work.'

OBSERVATION AND STUPIDITY.

Two lads were set to work together in the garden of a nurseryman; both were honest and industrious. They performed, to the master's satisfaction, the work required of them, and remained long in his service. But between these two lads there was a great difference, and herein it consisted: day after day, and year after year, John went to the tool-house, fetched out his spade, hoe, rake

or scythe, and used them as directed; and when done with, put them away again, without ever making an observation, or asking a question, that would add one jot to his stock of information. In course of time, he must, through mere mechanical habit, have become more expert in handling his tools, but it may be questioned whether in the lapse of years he gained one idea even on the subject of his own calling.

Henry, on the other hand, constantly observed what passed before him. He not merely followed the directions given him, but tried to understand their principle, and if he could not perceive it, civilly inquired of his master, or one of the elder men, *why* such a thing was to be done in such a manner? If he saw two men do the same thing in a different manner from each other, he watched the result of the two methods, and treasured up in his mind the comparative value of each. The handle of one of his tools was frequently broken; it was of willow wood. 'Perhaps,' thought he, 'this is not a suitable handle for the purpose, ash is more tough and close, and might answer better.' He fitted in a handle of ash-wood, and found it durable. This was a piece of knowledge that he could never forget. Then he made his remarks on the different soils and situations chosen for certain plants. He observed the modes of culture employed by the most skilful of the men. If an injury occurred, he endeavoured, if possible, to trace it to its cause, and guard against it in future. Thus he was continually acquiring practical skill and experience; and sometimes suggested a hint for improvement, which his superiors found worth adopting. And can it be supposed that he, like John, would remain all his life a mere digging machine! No! his diligence and attention qualified him to rise whenever a vacancy occured, his master felt pleasure in promoting him, and at the same time advancing his own interests, by securing so intelligent and faithful a servant. He has been many years foreman or superintendant of the whole concern, and is generally supposed to hold a sort of partnership in the property.

DIRECTIONS TO BEE-KEEPERS FOR JULY.

The combs in hives that have stood for several years become black and useless, because the bees never clean out the cells in which the brood has been reared, and the skins which the young bees cast gradually fill up the cells until they are too small for breeding. In consequence the hive gets weaker and weaker, swarming cannot take place, and at last the bees die.

To prevent this fatal end, you may in spring, before breeding-time commences, after fumigating the bees a little, turn up the hive, and cut out half the comb; put the bees in again, and during the summer they will fill up the vacancy and have room for breeding. Next spring take out the remainder of the old comb in the same way. One stock treated in this manner is said to have been kept for the long period of sixty years. Sometimes when a stock has not swarmed, it is desirable to remove the bees altogether from the old hive into a new one. This must only be done during the first week in July, if attempted earlier the new brood is not all hatched, many bee grubs would be destroyed, and you would have a weak stock. On the other hand, if transferred later, there would not be time for them to make their comb, and lay up winter store. Fumigate at night as described, (*Family Economist*, vol. 1, p. 87,) put the stupefied bees into a new hive, taking care that the queen is among them; place the hive on the stand in the same position the old one occupied, and on the morrow they will commence their labours as a new swarm. If the weather be fine they will do well, but if they are found to be weak in autumn, take them up and unite with another stock.

Driving bees, is sometimes adopted, instead of fumigating. The operation is as follows: Place a new hive upside down in a pail or pan, put the old hive carefully upon it, tie a cloth round to keep the hives together, and to prevent any bees from escaping. Turn the hives up, so that the old one may be at the bottom, the new one above. Tap gently with a stick round and round the old hive, until the bees ascend to the new one. As soon as they appear to have gone up, put the new hive on the stand in place of the old one. If the queen is in the new hive, the bees left in the old one will soon rejoin her, if the old hive be placed near. This method is best practised in the evening.

Now take side hives and boxes when they are filled as directed, (*Family Economist*, vol i. p. 87). Prevent swarming in July; late swarms never do any good.

QUACKERY.—In Aylesbury, the sale of ducks realizes £15,000 a year; in Norfolk and Cambridge the small farmers pay their rents with the produce of their poultry. Mr. Baylep stated, at a meeting lately held in St. Alban's, that in nine years he sold to the value of £81,000, and that in the same period he and his father sold conjointly £200,000 worth of poultry, and also, that during those nine years he paid £3,000 in wages. In Kent and Surrey £300,000 is received annually for poultry. It has been proved that a hen is more profitable than one ewe. *Keene's Bath Journal.*

VARIETIES.

Singular Fact.—On recently opening the burial vault of the Chaplin family at Blankney, in Lincolnshire, it was ascertained that a large gray bat, which had been found within the place on several occasions when the vault was opened, was still an inhabitant. It is calculated that the bat has lived in the tomb for thirty-three years.

A Reason for Cleanliness. — Mahomet knew that he should never get good Mussulmen unless he kept their bodies in a fit condition, and therefore, his Koran recommends water copiously, and tersely declares to his followers, 'God loveth the clean.' It is difficult to believe in a dirty Christian. To convert a filthy sinner, it is necessary to begin by washing him.—*Journal of Health.*

Coffee a Purifier.—It is not generally known that coffee has the property of rendering animal and vegetable effluvia harmless, and indeed of actually destroying them. The following facts, given on the authority of the *Medical Gazette*, refer only to dry and fresh-roasted coffee, but if its efficacy in that form be established, it would furnish a presumption in its favour, as a beverage for the use of nurses and others in attendance in the sick-chamber. It is certainly a most agreeable refreshment in case of night-watching—preferable to tea—and beyond all comparison (for it is a *contrast good* versus *bad*, not *better* against *good*) to any kind of fermented liquor :—

'A room in which meat in an advanced degree of decomposition had been kept some time, was instantly deprived of all smell, on an open coffee-roaster being carried through it, containing a pound of coffee newly roasted. In another room, exposed to the effluvium occasioned by the clearing out of a dung-pit, so that sulphuretted hydrogen and ammonia in great quantity could be chemically diluted, the stench was completely removed within half-a-minute, on the employment of three ounces of fresh-roasted coffee; whilst the other parts of the house were permanently cleared of the same smell by being simply traversed with the coffee-roaster, although the cleansing of the dung-pit lasted several hours longer. Even the smell of musk and castoreum, which cannot be overpowered by any other substance, is completely dispelled by the fumes of coffee; and the same applies to asafœtida.'

Gladness and Health.—Joy is one of the greatest panaceas of life. No joy is more healthful, or better calculated to prolong life, than that which is to be found in domestic happiness, in the company of cheerful and good men, and in contemplating with delight the beauties of nature. A day spent in the country, under a serene sky, amidst a circle of agreeable friends, is certainly a more positive means of prolonging life than all the vital elixirs in the world. Laughter, that external expression of joy, must not here be omitted. It is the most salutary of all the bodily movements; for it agitates both the body and the soul at the same time; promotes digestion, circulation, and perspiration, and enlivens the vital power in every organ.—*Hufeland.*

Despondency. — Hope awakens courage, while despondency is the last of all evils; it is the abandonment of good, the giving up the battle of life with dead nothingness. He who can infuse courage into the soul is the best physician.

The Rarest of Endowments.—To be exquisitely alive to gentle impressions and yet to be able to preserve, when the prosecution of a design requires it, an immovable breast amidst the most imperious causes of subduing emotion, is perhaps not an impossible constitution of mind, but it must be the rarest endowment of humanity.

Potatos. — Professor Mulder, who thoroughly investigated the potato, solemnly denounces it as an article of food, and says it is the 'cause of the moral and physical degradation of the nations that use it.'

Paternal Beggar Boy.— A professional beggar-lad in Glasgow, aged ten or twelve years, exhibited himself several days in succession, with a board before him imploring alms, on the ground that he had been 'left with a family!' Unable to read, he had bought a wrong ticket.

Milk.—It is common to regard milk as little else than mere drink. But this is an error. Milk is really an article of solid food, being coagulated soon after reaching the stomach. New milk contains thirteen per cent. of digestible solids, and skim milk ten per cent.; that is, the former fully one-half, and the latter above a third, of the nutriment contained in the lean part of mutton and beef.

Sham Preserves. — Preserved ginger is manufactured wholesale, for Italian warehouses, of lettuce stalks, compressed into shape by steel moulds and sweetened and flavoured; whilst *marmalade* is made chiefly of the pulp of oranges and turnips, the orange skins being wanted for citron and candy.

Porcelain Brooches.—A new species of manufacture has been commenced in the Staffordshire Potteries: that of earthenware brooches. We have seen several specimens of these 'Porcelain Brooches,' and they are indeed of surpassing chasteness and beauty. An advertisment on the cover of our June number had reference to these articles.

Prizes for Whitewashing.—Prizes have been offered at Glasgow for the best whitewashed and cleanly houses.

IT'S BENEATH ME.

A TALE.

'I TELL you it's beneath me, and I shall not go. I didn't marry you to be made to sit down with all the low people in Mexworth. My father was an apothecary, and I know what's due to myself too well to disgrace my family; and that's all about it, Sam,' said Anne Rogers to her husband one evening towards the end of their honey-moon.

'But they are not *low* people,' quietly remarked Sam, as soon as his wife's volubility had a little expended itself: 'They are honest, industrious, well-mannered folk as any in the whole town.'

'They *are* low people,' retorted the lady. 'Did'nt Mrs. Perkins's mother sell nuts and apples at the corner of the street, and was her father anything better than a journeyman? It's nothing but because Joe was your fellow-servant that you want me to demean myself to people like that. I wonder you haven't more proper pride than to forget that you were butler when he was groom. But if *you* have got no dignity belonging to you, I have, and that you'll find, Mr. Rogers.'

Sam was pretty certain it was a desperate case, for his wife had only once before honoured him with this form of address. He stuck his hands, therefore, into his pockets with a hopeless air; but not to be beaten without a struggle, began once more, with a 'But my dear Anne'——

'But your dear Anne has got a will of her own about some things,' was the impatient reply, 'and that's one; so you can tell the Perkinses not to expect me.'

Half in sorrow, half in anger, her husband took up his hat, and hastened into the street.

Thank God that everywhere, even in the busiest thoroughfares of our busy towns, the sweet freshness of the summer evening may be felt by those who seek it. It seems as a messenger, sent to smooth the ruffled brow of the angry and careworn, and to bring fresh bloom into the faded cheek of the sickly and the sad. It is certainly our own fault if we do not come home of a summer night happier and better than we go out; and so Sam thought, as he felt the breeze upon his forehead. Accordingly, he had not gone far before his anger had subsided, and all his tenderness for his wife came back.

'I knew she was high, before I married her,' he remarked to himself, 'so I've no cause to be surprised at what she says. She's high—but then she has a kind heart at the bottom. Who can tell whether I mayn't get her to see as I do, if I've only patience just for a bit?'

True, Sam: if you have patience you may fairly expect it. We wish you success, with all our heart. We shall be glad too, if you *do* succeed, of a little advice from you; for, unfortunately, not a day passes over our heads but some good undertaking is spoiled in the beginning, for want of hoping and trying a little longer.

Will Sam's be spoiled? is, however, the question at present. I think not; for, conscious that he *had* patience, and a good deal for his time of life, he quickly made up his mind what course to adopt. This was, not to try to overturn his wife's pride by direct attack; but, like a skilful general, investing some fortified place, to sap and undermine it at the foundations.

By the time he reached home, the cloud had passed away from Anne's face, and, in a cheerful voice, she asked if he were ready for supper.

During the meal, conversation went on briskly; and Sam took an opportunity of remarking, that he thought his wife would have a visitor in a day or two; for he had heard that his old mistress and kind friend, Mrs. Courtenay, had come back from London, and she told him just before she went, that she should call and see his wife as soon as she returned.

'Well, I'm sure it's very kind, and I shall be uncommonly pleased to see her,' said Anne. 'I hope she will look in of an evening, though; I should not like a lady to catch me just in my dirty trim.'

'As to *dirty*, that you never are,' said her husband, turning a pleased look on the tidy figure beside him. 'I believe,' added he, somewhat more drily, 'that it's *you* she comes to see, and not your gowns; but I dare say she wouldn't mind going up and looking in the drawers, if you asked her.'

Anne, who had a quick sense of the ridiculous, was more amused than angry at this speech, and presently after turned the conversation.

The following evening, when Sam came home to tea, he heard that Mrs. Courtenay had just called ; and found his wife in extreme delight at the kind and good-natured manner of her visitor.

'What I liked so much,' said Anne, 'was her coming right up to the table, instead of standing just in by the door. And then she sat down upon your chair there just as if she had been in her own drawing-room, and talked away to me as kind as though I were her equal.'

'What did she talk about?' inquired Sam.

'About you, mostly—what a good servant you used to be, and what a good husband she thought you'd make. And then she asked all about my family—where mother lived, and how many sisters I had married, and lots of things besides. But it was not,' said Anne, warming with her subject, 'it was not so much the things she said, as the pleasant manner she had with her ; and then she shook hands so heartily when she went away.'

A half smile passed over Sam's face as he quietly remarked, 'She did not seem as if she thought it was *beneath* her to come to see you, then?'

Anne made no reply, unless a deep blush can be considered as such ; and her husband wisely refrained from pressing her any farther.

This was Wednesday evening. Friday morning, at breakfast, Mrs. Rogers asked her husband whether he had said anything yet to the Perkinses.

'No : I have not seen Joe ; but I expect to do so this evening, and I must give him an answer then. What had I better say?'

'That we will go,' said his wife, without the smallest hesitation ; and the husband felt himself rewarded for his forbearance.

The evening of the visit soon came ; and Anne, dressed in her wedding-gown, accompanied her husband.

To her surprise, she found Mrs. Perkins's house, though smaller than her own, not merely clean, but the very picture of comfort. It had—a most unusual luxury in this part of the town—several pots of balsams and fuchsias in the sitting-room window ; and the room itself was hung with various pencil drawings, the work of the Misses Courtenay, by whom they had been presented to Joe on his marriage.

In putting on her best bonnet and gown, Anne had also put on her most dignified manners. For the last three days she had been weighing the difference of rank between the daughter of a journeyman and that of an apothecary ; and it was as important, in her opinion, that this difference should be felt in its precise degree at their first meeting, as it is in the eyes of a solemn court usher that at some grand ceremonial the precedence of an earl over a baron shall be carefully observed.

You will wonder, perhaps, that, as Anne was sufficiently moved by Mrs. Courtenay's example to go at all, she did not go in a more humble spirit. Unfortunately, to many of us this is no mystery. Her inborn invisible enemy had received a sharp blow, it is true ; but it had but driven him from the outworks into the citadel. There he took up a stronger position than before ; and, but for God's blessing on a nature honest and kindly in the main, it would have gone hard but he would once more have regained the mastery.

Anne, then, went prepared to be royally gracious, and to patronise Mrs. Perkins, if she found her agreeable ; but her plans were disconcerted, and by a very simple cause—Mrs. Perkins was a person who could not *be* patronised. Happily, in most circles her counterpart is to be met with, so a short description will enable my readers to recognise her. When you see a woman quietly doing her daily work, without seeking for excitement, content to live and die unknown, if it so please her Father in heaven,—when you see one who feels that in doing the humble duties of every day life she is as great, *in the sight of God*, as the conqueror in the battle-field, or the lawgiver in the senate,—there you see one whose manner is full of true dignity, and whose countenance beams with true happiness,—then you have the picture of many a noble woman, amongst others, of my friend Mary Perkins.

'What a lady she would make!' said Anne to her husband, as they walked slowly home by the light of the moon.

'What a lady *she is!*' he quickly replied. 'Yes, all the fine clothes in the world could not make her more so. All they could do, would be to help other people to see it: but it's a poor traveller that can find no place without a directing-post.'

Anne answered only by a sigh. There was something in her heart that said 'Yes' to every word spoken by her husband; but there was also a strong dislike to hear the remarks spoken.

Courage, Sam! have patience a little longer, and who knows what, with God's blessing, you may be able to accomplish.

* * * * * *

'Come, Johnny,' cried a little girl of nine years old, to her brother, who was apparently a year younger, 'run off now, for it's just five o'clock, and you won't be back again before tea-time, unless you make haste.'

'Here's mother; I'll ask her if I must. Mother, I don't like to go for James Strong; may Anne go?'

'Why don't you like to go, John?' inquired his mother—an old friend, whom we have not seen for ten long years.

'Because he has got such shabby clothes, and the boys all laugh at him. And Henry Davis said this morning that it was beneath us to play with him.'

'Henry Davis is very wicked, then,' exclaimed the little girl.

'Not wicked, but he ought to be better taught,' said the mother. 'Does he accuse James Strong of being a thief, Johnny?' she inquired.

'No, mother,' said Johnny, looking at her with some little surprise.

'Or of being a liar, or using bad words?' she asked again.

'No,' said Johnny, opening his eyes wider and wider.

'Then go and bring him here directly. And tell Henry Davis, the next time he says any thing, that *your mother says* it is *not* beneath you to play with good boys, although they may be poor; and it *is* beneath you to play with bad boys, let them be ever so rich.'

Johnny ran off immediately, inspired by his mother's words: and the father, who had come in just in time to hear the last sentence, stood, looking the picture of silent delight.

'Thank God for helping me to be patient with her,' he said to himself. 'Oh, what a difference from ten years ago!'

DAMP WALLS.

It happened, during last summer, that I was called upon, in a distant part of Dorsetshire, to suggest some means by which the wet might be prevented from penetrating the external walls of a school-house that had recently been built in a very substantial manner, with bricks of the best quality; but where, owing to the elevated and exposed position of the building, it was found that neither increased thickness of walling, nor internal battening, would answer to make the school habitable; and nothing but an external coating of cement was, by the proprietor of the building, thought capable of remedying so serious an evil.

The ingredients were mixed in the following proportions:—three-quarters of a pound of mottled soap to one gallon of water. This composition, when in a boiling state, was laid over the surface of the brickwork steadily and carefully, with a large flat brush, so as not to form a froth or lather on the surface. The wash was permitted to remain twenty-four hours, to become dry and hard.

Another mixture was then made, in these proportions:—half-a-pound of alum to four gallons of water; which, after standing for twelve hours, in order that the alum should be completely dissolved, was then applied in like manner, with a flat brush, over the coating of soap. I need [illegible]ely mention, that we availed ourselves of settled and dry weather, during July, for these operations.

I have now to speak of the result up to the present time, as to the success of the process.

Within a month after the trial, there happened one of those tremendous south-west gales, accompanied by heavy driving rains, such as had formerly drenched the school-house, and obliged the inmates to put pails, cloths, &c. to catch the drippings inside. It is satisfactory to state, that the

walls were completely proof against the rain; not a drop penetrated through during forty-eight hours of the most severe weather; nor from that time to the present, though repeatedly subject to like trials, have the walls admitted the least moisture, nor has the artificial coating suffered apparently the slightest injury. The liquid, when applied, formed a thin, scaly, or gummy-looking integument, perceptible only by close inspection, but producing rather a mellow appearance, such as a building obtains when covered with lichens. The rain splashes against the walls as against glass, and runs down the face in a similar manner.—*Mr. Fermy, Fellow of the Institute of British Architects.*

PROVIDENT SOCIETY FOR SERVANTS.

THERE is one portion of the community which, in the proper discharge of its duties, contributes materially to the comfort of the rest, and of whose services few would like to be deprived—we mean the domestic servants. Perhaps we shall be told that servants are a cause of very great discomfort; that they are, in fact, 'the greatest plague in life.' No matter: what we have to say, applies to all parties; certain advantages are to be indicated which, if made use of, will enable good servants to relieve themselves of anxieties respecting their future maintenance, and bad ones to retrieve their characters.

Most persons have heard of life-assurance, whereby, in case of death, a sum of money is secured for the survivors; or of annuities, to become payable at a given age, say 50 or 60. Such benefits as these are now offered to servants, male or female, in any part of the country, by the 'Servants' Provident and Benevolent Society,' 32, Sackville Street, London. Mr. C. Chester is the secretary, and all those who wish to make inquiries respecting the society must address their letters to him. There is no reason why servants should not make a provision against destitution in old age, as well as those who are in more wealthy circumstances. It appears to be certain, that some of them are very badly off in the decline of life; for in four only out of the London workhouses there are more than 1600 paupers who once were servants. Such a prospect is not at all an agreeable one; and we should think that every one who has the ability will strive to avoid it.

The society above-mentioned proposes 'to relieve honest and industrious domestic servants of both sexes, who have been rendered incapable of active duty by unavoidable misfortunes, and the advance of age with its consequent infirmities, by granting to its members annual pensions, ranging from 15*l.* to 25*l.*' In order to obtain these pensions, the applicants must be persons of good character, and be able to pay a yearly subscription ranging from 3*s.* to 7*s.* They 'must produce such testimonials of good conduct as the committee may require; and if resident in the country, apply to the secretary for a form to fill up, with particulars of their case, which must be attested by the minister, churchwarden, or other respectable persons of the parish in which they reside.' Those who live in London are expected to call at the office.

This is the benevolent part of the society's object; the other may be understood from the following statements, as printed in their report:—

'The society's primary object is to encourage and assist servants, their wives or husbands, to secure—1st, Government Annuities in old age, which annuities may be of any amount not less than £4 nor more than £30 a-year; 2dly, endowments of from £10 to £50 for apprenticing or placing out children; and 3dly, assurances of not more than £10 payable at death.

'The extent to which the society is already in operation, as a provident society, may be seen from the following statement of business transacted since its first general meeting in May last (1848).

'At that period there were only seven provident members—there are now not fewer than ninety. Of these, one has contracted for an immediate annuity, and eighty-four for deferred annuities; five for endowments, and one for a policy of assurance.

'The total sum received by the society from servants for the purchase of annuities, during the last year, is £1,287. 15*s.* 10*d.*; and the total received from servants, on account of annuities, endowments, and insurances, since the present amended system of the society was brought into operation, in March 1848, is £1,295. 9*s.* 7*d.*

'In order that the full importance of these statements may be duly appreciated, the meeting must be informed, that the total number of annuities contracted for by all the Government Annuity Societies in the kingdom, including savings' banks, since the passing of the Annuity Acts in 1833, a period of nearly sixteen years, is only 941, of which 683 only have been persevered in; so that this society has in fourteen months contracted nearly one-eleventh of the whole number contracted for by all the savings' banks and annuity societies in the period of nearly sixteen years.'

Now there is a very important fact connected with these annuities—there is no risk of loss. They are what is called Government Annuities; that is, the government undertakes to pay a certain sum every year to the purchaser, as long as he or she lives. This is much more satisfactory than subscribing to a society, whose rules are not safe, and where, as is sometimes heard of, the treasurer runs away with the money-box. In vol. 1 of the *Family Economist*, p. 8, we gave some account of these government annuities; and the advantages they offer are such, that the more they are known, especially among the humbler classes of our population, the better. Married people may purchase annuities as well as single, and for their children also, when fifteen years of age. There is no risk whatever of losing the deposit money, for, as Prince Albert stated in his speech at the meeting above alluded to, 'should a depositor at any time wish to withdraw his deposits, they will be returned to him; and should he die before the period when the annuity is payable, his deposits will be returned to his heirs; and in such cases, the only loss will be the interest on the money deposited. Although this wise and benevolent measure was enacted in the third year of the reign of William IV., I am grieved to find that in the whole period which has since elapsed, only about 700 persons have availed themselves of its provisions. I can discover no reason for this, except that the existence of the act and its provisions are not generally known, or that people are afraid of law and acts of parliament, because they frequently cannot understand their complicated and technical wording. I have heard another reason stated, to which, however, I cannot attach much credit, namely, that the servants are afraid that the knowledge that they are able to purchase annuities, by saving their wages, might induce their masters to reduce their wages. I have a better opinion of the disposition of masters, and I am convinced that nothing tends more to counteract the liberality of masters, than the idea that an increase of means, instead of promoting a habit of economy among their servants, leads to extravagance.'

Owing to the misconduct of some, there is frequently a difficulty for a well-intentioned servant to obtain a suitable place. This difficulty would be avoided, if employers were always considerate, and servants always trustworthy. On this point the society state, in their prospectus that, 'having been established for the purpose of promoting the welfare of those domestic servants who, by habits of frugality, feel disposed to make some provision for their declining years, the committee have, with a view to the furtherance of the objects of the institution, decided on adding to it A BOOK OF REGISTRY, in which servants of good character, who are subscribers, and need situations, may, on the payment of a small fee, register themselves; and all who feel interested in the design may have free access to a list of servants, whose connection with this institution will, it is hoped, be some guarantee of their respectability.' The committee further state, 'that this registry must not be in any way confounded with the ordinary registry offices of London, as none but servants belonging to the institution, who can produce testimonials as to character, will be permitted to register.'

We are further informed in the report, that 'servants will enter their names, addresses, places of birth, the names and addresses of all those with whom they have lived, the characters which they have received from all their former places, and all other requisite particulars. The original documents will be exhibited, and the society, through its agents, will use its best endeavours to ascertain that such documents are genuine. It is presumed that fictitious characters would easily be detected at the office. No servant will be admitted without a satisfactory character. The directors will not, however, guarantee the character of any servant, but will furnish the employers with the best possible means of judging for

themselves, and making a selection from a large number of servants, who may be seen at the registry office.'

Here are excellent opportunities of promoting personal comfort and self-respect, which, we doubt not, most, if not all, good servants will be glad to embrace ; and those who have hitherto thought nothing about the matter, who have been content to spend their wages as fast, or faster, than they earned them, can now set about reforming themselves in real earnest, and make a trial of the advantages to be attained by the outlay of but a little money, combined with good conduct. On this point Prince Albert spoke :—'Anybody who is acquainted with the inconvenience and annoyance of the present system of characters to servants, will at once perceive how useful and prudent it will be to introduce a system, according to which the servant, on the one hand, will be protected from the ruin which the caprice, it may be, of a single master, with whom he may have staid for a short time, may bring upon him ; and prevent, on the other hand, the dangers which may arise from being imposed upon by characters wrung from weak masters by the importunities of dishonest servants. Nor is it a small boon to servants, to enable them, by an appeal to the record of long services, to redeem the disqualification which one fault may bring upon them. If we should only succeed in drawing attention to these points, and making the public consider them, we shall have the satisfaction of materially aiding the interests of a class which I find, on reference to the last census, is the most numerous in the British population.'

Besides what has been stated, the committee contemplate the formation of a 'Home' for female servants when out of place, and a model lodging-house for male servants, who, as is sometimes the case, do not sleep in the houses of their employers. Such establishments are calculated to prove of essential service, for the whole number of domestic servants in England and Wales is 1,000,000 ; and of these 3,000 only are members of the society.

Some excellent remarks were made by the speakers at the meeting to which we have more than once referred, and we quote from them as further developing the objects of the society. Lord John Russell said :—'I hope you won't believe the less the First Lord of the Treasury, when he says, that the government don't expect to get more from the domestic servants than they give. The act of parliament provides that the sums received shall be exactly equal to what is given ; and if the subscriber die before the period when the annuity becomes due, his representatives shall be entitled to the sum paid. If he is unable to continue his payment, the sum already paid will also be returned to him, so that no one can be a loser. Having stated, therefore, what I have done very imperfectly, I will only say to those who have had experience of servants, that if we can contribute by this society to bring servants into communication with the means by which their old age may be rendered more comfortable and happy, it will not be a gratuitous benefit, but rather a return for services which we have received from that class. There is no person who has been connected with servants, who has not had occasion during a great part of his life to feel himself indebted to their great intelligence, fidelity, and affection, for relief in sickness, and for their care either of them or of those nearly connected with them. If we contribute to the welfare of servants, therefore, we shall only be returning a debt of gratitude.'

The Bishop of Oxford observed, in the course of his speech, that—'There were special reasons why the people of this country were bound to stand forward for the protection of domestic servants. That there should be familiarity without confidence, intercourse without affection, service rendered on the one side as a pecuniary obligation, and received on the other as a simple right,—all this could not exist without giving an unreality, and therefore a certain measure of falsehood, to all the intercourse between master and servant. The right reverend prelate in eloquent terms descanted on the manner in which habits of improvidence and servility were formed among servants. The subject, he said, touched on the great question of family life, which among secondary causes he characterized as the palladium of English society. They must all feel that his Royal Highness was amongst them in eminent accordance with what they all knew of his daily life, when they saw him there helping to maintain, by example as

well as precept, the purity and sacredness of English family life.'

Lord Ashley's remarks are well deserving of attention:—'Any one,' he said, 'who had experience of the condition of servants, would confirm at once the truth and necessity of such a resolution. Sick clubs and benefit societies had too often proved snares to those who trusted them, and had only pampered and enriched the artful persons who had set them afloat, in order out of the ruin of members to work their own ungodly advantages. As to the government annuities, which the society proposed now for the first time to render available, it was no person's interest to make their applicability to such objects known,and therefore until his Royal Highness came forward that day, the provisions of the act of William IV. had remained almost unknown. A provision for female servants he considered more important even than for males, as their wages were smaller, and the temptations to dress extravagantly were so great. The provision now suggested was the best, most economical, and the safest that could be hit upon. He compared with it the means of support at present resorted to very frequently by servants in the metropolis, who let out lodging-houses, in the worst and most degraded neighbourhoods, at so much per week or night. He advocated the necessity for some home to receive the immense number of young women who, in the bloom of life, came up to town, or who, from some sudden caprice, were thrown out of employment. Having touched upon the temptation and ruin to which female servants were in such cases exposed, he drew a frightful picture of the crime which originated in the lodging-houses of those three great centres of vice in England—London, Birmingham, and Manchester.' The noble lord concluded a long and able speech by saying 'that he was one of those who looked forward to the time when there would be a restitution of good feeling and affection between master and man, between mistress and maiden; when there would be revived the patriarchal reciprocities of affection and respect.'

We may say, in bringing this article to a close, that we consider the whole subject as one that comes home to all classes of readers: we wish the society every success in their undertaking, and gladly assist in the wider publication of their objects.

A CHAPTER ABOUT CHOCOLATE.

When the Spaniards, under their leader Cortez, conquered Mexico in 1521, they observed a peculiar kind of beverage in high esteem among the natives, who drank it at their daily repasts and their sumptuous festivals, and called it *chacoc-atl.* From this Mexican term our word *chocolate* is derived. The Spaniards soon after first brought it to Europe, and for a time kept the knowledge of it secret. But, as must always be the case where commerce can by any possibility get to take care of itself, the new product soon found its way from Spain into other countries.

The tree which produces chocolate is named by botanists the *Theobroma Cacao;* it is a native of South America, but is largely cultivated in the West Indies, Africa, Asia, and the islands of the Eastern Archipelago. In this country it may be seen in the conservatories of those who cultivate rare specimens of foreign plants. The trees of this species grow from twelve to sixteen feet high, with a slender straight trunk, and bright evergreen leaves. The branches begin to spread out at about five feet from the ground, and are covered with leaves, flowers, and fruit at the same time all the year round. The flowers are scentless; they grow in clusters, of a reddish hue, from every part of the larger branches and the stem, directly from the wood; a peculiarity of which the English black currant presents a familiar example. The fruit is something like a cucumber in shape, of a green colour, which changes to a brownish red or yellow, from four to six inches long, and covered with warts. According to the species, each fruit contains from ten to thirty seeds, about the size of almonds, inclosed in a flesh-coloured pulp, which has an agreeable acid taste; and the fruit is fit to be gathered when the seeds rattle inside on being shaken. Although the tree bears all the year round, the gathering takes place but twice in the twelvemonth, in June and December: the operation being effected either by hand or

with a long wooden fork. When this is done, the seeds are taken out, and after being carefully cleaned from the dried pulp, are spread out in the sun to dry, and are then ready to be packed for market. In some provinces of South America, the seeds there produced are buried for a short time underground, which renders them mellow and improves their flavour.

Low plains on the borders of rivers, with a marshy soil, exposed to floods, are best adapted for plantations of cacao; without a plentiful supply of water the plants will not thrive, and in common with coffee, they require to be sheltered from the direct scorching rays of the sun. This shelter is mostly afforded by the coral bean tree, for which reason the Spaniards call it *Madre di cacao*, or Cacao-mother. The plants are raised from seeds set from six to twelve feet apart; when two feet high, the weakest are removed, and after that they give but very little trouble. In the second year, by which time the plants are three feet high, all the branches but five are cut away, and after the third year fruit makes its appearance. The only attention required is to keep the ground thoroughly clear of weeds, and it is said that a plantation of a thousand square feet can be kept in order by a single negro. Each tree produces from 1½ to 3 pounds of seeds annually, and in favourable localities will bear for fifty years; but the average duration of a plantation is the same as that of coffee—about thirty years. The appearance of the trees spreading far over the ground is described by travellers as very pleasing. There are several varieties, some of which do not bear fruit; but the wood of all is remarkably light, and much used by coach-makers.

The seeds, as prepared for use by either of the processes above indicated, constitute what are called in England cocoa beans, or nibs; and from these beans are (or ought to be) made all the preparations of cocoa and chocolate offered for sale throughout the country. Some persons consider the two to be altogether different substances; but cocoa nibs are nothing more or less than the seeds of the chocolate tree. The nibs are roasted to prepare them for sale, in a machine similar to that used for roasting coffee, and by this means the skin or husk of the seeds is separated. If to be made into chocolate, all the bad ones are carefully picked out, and the good ones ground in a peculiar kind of mill by a wheel made up of rollers turning upon a slab of marble or hard stone, kept hot by a fire underneath. Certain flavouring matters, such as vanilla, cinnamon, or other spices, with sugar or honey, are added during the grinding, and when the heat and pressure have worked the mass into a soft paste, it is squeezed into moulds; and thus are formed the cakes of chocolate as sold in shops. The flavour is improved by keeping, hence old cakes are better than new; but unless all the damaged or mouldy nibs are carefully picked out at first, the cakes spoil in a short time. The *chocolat de santé*, or health-chocolate, has nothing besides sugar added to it. This kind is mostly preferred in England, but on the continent, in France and Spain, the spiced or perfumed sorts are consumed in enormous quantities. In South America, the usual preparation consists of 17 pounds of nibs, ten pounds of sugar, 28 pods of vanilla, 1 dram of ambergris, and 6 ounces of cinnamon. Besides preparing it in this way, large quantities are consumed in the raw state. Before the fruit is fully ripe, the pulp is particularly juicy, and of an agreeable acid flavour, very cooling and grateful to the people of the countries where it grows: the seeds too are formed into a kind of preserve.

There is a notable difference in the size and appearance of cocoa nibs: some are small, hard, and dry; others large, tender, and unctuous, according to the nature of the tree that produced them, and the attention bestowed on them during growth. It is chiefly the dry kind which are sold for use as cocoa nibs; they are slightly bruised, and require from two to three hours' boiling to extract all the goodness. Flaked cocoa is the better kind of nibs pressed flat between rollers. But with this as with almost every other manufactured article offered for sale in this country, adulteration takes place to a large extent. Genuine flaked cocoa is imitated by concoctions of rubbish; and to make the cocoa sold in square or oblong packets, the husks are ground with the nibs, and too often also the husks separated from the nibs used for chocolate, with the addition of sago and potato-starch. what is called homeopathic cocoa contains a considerable proportion of arrow-root. In a given quantity of nibs

the husks comprise about one-fourth of the whole; some idea may therefore be formed of the extent to which the quality is reduced. Still as these husks contain a good deal of nutriment, the admixture is not so reprehensible as in other cases. Chocolate is also greatly adulterated: rice, starch, sago, lard, and Venetian red, are mixed with it. A few years since, a memorial was laid before the Commissioners of Excise, complaining of certain manufacturers whose adulterations were of the most wholesale description. Every pound of the (so-called) cocoa sold by them, contained four ounces of real cocoa, four ounces of potato starch, and eight ounces of a red American earth. The price of this precious composition was fivepence per pound, while those who made a genuine article could not charge less than fourteen-pence. It was stated that the dishonest parties referred to, ground three tons daily on their premises, whereby they had accumulated great wealth, and defrauded the revenue of £20,000 annually: other dealers were accused at the same time of making great use of 'brown umber' in their preparations of cocoa and chocolate.

As the law stands, certain vegetable substances, farinaceous powders, and aromatics, may be mixed with cocoa or chocolate; but mixture with 'any roasted material whatsoever, or any ingredient whatsoever,' except those just mentioned, is absolutely forbidden under a penalty of £100. For some reason this law has not been put in force of late years, but it is still valid, and the officers of Excise may at any time visit and inspect the stock and premises of suspected parties. Perhaps the public are as much to blame for these and other adulterations as the fraudulent manufacturers. At the present time, there is a great rage for cheapness, and wherever people can get 'most for money,' there will they crowd to make their purchases, thinking that because they get a big lump, it must be a bargain. And thus rogues flourish, while honest dealers have much ado to get a living.

On examining good cocoa nibs chemically, they are found to consist of rather more than half of fat or oil, called cocoa butter; the remainder is made up of gum, starch, wood, red dye, and an agreeably scented brown matter, which imparts the peculiar flavour: among the best are those brought from Trinidad. The oil is pressed out for manufacturing purposes: it is white and solid, and never turns rancid; and is made into candles, soap, and pomatum: but this again is adulterated with animal fat. In France it is much used; and for those subject to chapped hands or roughened skin in cold weather, the soap is very beneficial from its smooth and softening properties. It should however be remembered that oil of *cacao* is not the same thing as *cocoa-nut* oil.

The nibs, when roasted, require to be kept from the air, or they soon lose their flavour. Perfumed or spiced chocolate is considered to be heating or stimulating, as it sometimes disorders the stomach, and causes headache or a feeling of heaviness. In such cases, the plain sort should be used, and some medical men recommend making it weaker than is usually drunk. Those who find chocolate disagree with them will do well to use just half of the quantity stated in the printed directions; and if still inconvenienced, then to leave off drinking it altogether. On the other hand, those who cannot drink tea or coffee may find chocolate an agreeable substitute. It contains more azote, or nitrogen, than any other vegetable substance, and is therefore said to be extremely nutritious, and to assist in the formation of bile. Dr. Pereira states that cocoa 'is somewhat less oily than chocolate, and being rather astringent, is adapted for persons with relaxed bowels.' About sixty years ago, a French chemist extracted a sort of chocolate from the fruit of the lime tree, and endeavoured to prove that the flowers were equal to vanilla as a flavouring substance: but his experiments led to no further result.

No greater misfortune can befal natives of South America than to be deprived of chocolate; they are accustomed to drink it five or six times a-day, and are as unhappy without it as an inveterate smoker without tobacco. Some rare sorts manufactured in that country are never exported, and travellers say that the true exquisite flavour of chocolate can never be known by those who have not tasted these choice varieties. With few exceptions, chocolate has been a favourite beverage from the earliest period of its history. The aborigines of America always prepared it to feast noble travellers, when passing

through their country. An ancient Spanish physician described it as 'one of the most wholesome and precious drinks, that have been discovered to this day.' Another said, 'It is good alone to make up a breakfast and supply other victuals; because, having it, you need no further meat, bread, or drink: and in a moment it is prepared.' A third declared that it helped to lengthen life. On the other hand, some learned men contended that eating chocolate seeds caused decay of beauty, a withering of feature, and darkening of complexion, while the decoction was 'a wash only fit for pigs'—'creating weakness, obstructions of the blood, and vertigoes,' unless drunk at particular times and seasons. We need hardly say that such notions were the effect of ignorance.

So much was chocolate held in repute by the ancient Mexicans, that the seeds sewed up in bags passed among them as money, in the same way that cowrie shells circulate at the present day among negro tribes in Africa. Bernardo de Castile, who accompanied Cortez, in a description of one of Montezuma's banquets, observes —'They brought in among the dishes above fifty great jarrs made of *good cacao*, with its froth, and drank it, the women serving them with a great deal of respect. Afterwards, his guards and other servants did eat, and, I think, they had above a thousand dishes of delicacies. After which, they had brought to them jarrs of *cacao*, with its froth, according to the Mexican fashion, to the number of two thousand at least.' It appears, however, that for a time the value of chocolate was not properly appreciated by Europeans. Gage, an old traveller, who visited tropical America about 1630, writes—'Here grow many trees of cacao, whereof is made the chocolatte, and is a commodity of much trading in these parts, though our English and Hollanders make little use of it, when they take a prize at sea, as not knowing the secret virtue and quality of it for the good of the stomach.'

It is difficult to ascertain the particulars of the first introduction of chocolate into England. It was well known in the reign of Charles II., as at that time Dr. Stubbe, a physician, published a book entitled 'The Indian Nectar, or a Discourse concerning Chocolata,' &c., which contains a tolerably complete history of the article up to that period, mixed up with a number of fanciful conceits respecting its virtues and effects. The Doctor recommends his readers to buy their chocolate of a maker named Mortimer, 'an honest, though poor man,' who lived in Sun Alley, East Smithfield. The value of the best kind was then six shillings and sixpence per pound, and the common sort about half that price. So fond was the celebrated Linnæus of chocolate, that he gave the name of *Theobroma* to the tree which produces it. This term is composed of two Greek words, signifying *food for the gods.*

The duties paid on cacao beans imported have varied greatly during the past century, from four shillings to one shilling per pound; and the admission of chocolate cakes manufactured abroad was prohibited. At the present time, the beans brought from foreign countries pay a duty of twopence per pound, and from British possessions, one penny—and the manufactured article is charged with a duty of sixpence and twopence per pound respectively. In 1827, the quantity imported was but little more than 500,000 pounds: in 1847, it amounted to nearly 6,000,000 pounds. Thus, as we have seen, from small beginnings chocolate has become a profitable and important article of commerce.

TRY.

THERE are very few people among us who at all know what they could do to help themselves and others, would they only determine cheerfully and resolutely *to try.* No doubt, from many causes, the times we live in are somewhat severe, and there are difficulties and discouragements in abundance to contend with; but the question is, are we likely to mend matters by discontent or grumbling, and throwing the blame of our troubles upon our circumstances, instead of manfully *trying* to make the best of them? What right has any man to expect to get out of a difficulty, unless he does his best to help himself? There are thousands who can speak

to the truth of what can be done by *trying*—thousands who might have sat down and wept themselves stupid at the sight of the misery around them, and the difficulties in their own path, but who bestirred themselves like men and christians, wiping the tears from their eyes, smoothing the wrinkle from their brow, and for their reward soon found hope at the bottom of their empty wallets, setting to work as if the world was before them, and their success, under God's blessing, solely depending on themselves. Now many such have won from the future a revenge on the past, and been able to remember what they have gone through, only to increase the happiness and satisfaction of their present prosperity. What numbers of our best men and women could tell, if they choose, how they were buffeted in youth, how they were starved and neglected at home, slaved by their first masters, insulted, turned off, cast adrift, wanderers on the face of the earth. They could tell of cottages from which they had been ousted, and money out of which they had been cheated; how often they had to begin the world afresh, and how often they had found themselves friendless and penniless. But they did *not* become grumblers and rebels; they did *not* sit down in sulky useless despondency, to make a catalogue of their wrongs and grievances. No: they forgave what they could, and forgot the rest; they buried their grievances, and put them out of their sight; they looked before them for employment, and *above them* for guidance and help. So they set to work, and built their nests again, with a heart lightened and invigorated by the very exertion they were making, and soon felt that, under God, *the secret of each man's success is in himself*, and that there is true wisdom in looking forwards, instead of wasting life in idle despondency over the past. Trials come to every one at one time or other, to the rich as well as to the poor, to the high as well as to the low; but the right use of the trial is a rarer thing, the way to get the better of it, as well as how to get out of it, *requiring an effort* comparatively few are wise enough to make. Reader! are you in trouble: and do you want to get out of it? Rouse up, and TRY.

A NOBLE MISER.

LORD BRACO, an ancestor of the Earl of Fife, was remarkable for practising that celebrated rule—'get all you can, and keep all you get.' One day, walking down the avenue from his house, he saw a farthing lying at his feet, which he took up, and carefully cleaned. A beggar passing at the same time, entreated his lordship would give him the farthing, saying 'it was not worth a nobleman's attention.' 'Fin' a farthing to yoursel', puir body,' replied his lordship, and carefully put the coin into his breeches' pocket. In addition to being his own farthing-finder, his lordship was his own factor and rent-collector. A tenant, who called upon him to pay his rent, happened to be deficient a farthing. This amount could not be excused, and the farmer had to seek the coin. When the business was adjusted, the countryman said to his lordship, 'Now, Braco, I would gie ye a shillin' for a sight o' a' the goud an' siller ye hae.' 'Weel, mon,' replied Braco, 'it's no cost ye ony mair;' and accordingly, for a shilling paid down, the nobleman exhibited several iron boxes filled with gold and silver coin. 'Now,' said the farmer, 'I'm as rich as yoursel', Braco.' 'Aye, mon!' rejoined his lordship, 'how can that be?' 'Because I've *seen* it—an' ye can do nae mair.'

RECIPES.

[AMONG other matters forwarded to us by correspondents, we frequently meet with recipes for various purposes, which, to quote the writer's words, 'may be fully depended on.' We trust such is the fact, and therefore, without undertaking to vouch for the statements set forth, have included a number of these recipes in the following budget]:—

The Gloucestershire method of pickling Salmon.—Clean the fish, cut it in pieces of about a pound each. Boil it in salt and

water over a gentle fire. It should not be done quite so much as for the table—when the fins *begin* to loosen, it is enough. Drain it dry. When cold, place it neatly in the tub, and add of the following pickle enough entirely to cover the fish, and to reach an inch or more above it, to allow for shrinking. Pickle :—To one gallon of vinegar allow two ounces of black pepper, one ounce of allspice, one ounce of ginger : boil them together—or what is better, if time allows, let them stand on the hob in a stone jar, covered close, for a day and a night. When quite cold, add another gallon of unboiled vinegar, and pour the whole over the fish. The tub should be quite full, and closely shut down.

N.B.—This supposes a large quantity. The proportions may be observed on a small scale. A Nottingham ware jar, with a lid, answers as a tub. A few bay leaves may be added.

Yorkshire Bacon.—The following is the method of curing bacon in Yorkshire : —After killing, it is allowed to hang twenty-four hours before being cut up ; one pound of saltpetre is then rubbed into a twenty-stone pig, (of fourteen pounds to the stone,) and one and a-half or two stones of common salt, care being taken that it is well rubbed in ; after which it is laid in a tub kept for the purpose. Having lain a fortnight, it is turned over, and a little more salt applied, say half a stone, and left there a fortnight longer ; it is then taken out, and hung up in the kitchen, where it remains two months to dry ; but should the winter be far advanced, and dry weather set in, a shorter period might suffice. At the proper time, it is taken down from the hooks in the kitchen, the inside washed over with quicklime and water, to preserve it from the fly, and is then hung up in a spare room, where heat does not penetrate, and where it can be kept perfectly dry, and is ready for use. The smoking system is not generally adopted in the northern counties. The above plan never fails, if done with care ; the saltpetre and salt should be of the best quality, for upon those articles depend the success in producing a good article for the table. The whitewash not only preserves it from the fly, but also prevents it from becoming rancid, as might otherwise happen.

To keep Cheese.—When a whole cheese is cut, it is frequently found to become unpleasantly dry, and to lose flavour before it is all eaten. This is best prevented by cutting a sufficient quantity for a few days consumption from the cheese, and to place the remainder in a cool place, rather damp than dry, spreading a thin film of butter over the cut surface, and covering it with a cloth, to keep off the dirt. This removes the objection existing in families against purchasing a whole cheese at a time. The common practice of buying cheese in small quantities should be avoided, as not only a higher price is paid for any given quality, but there is little likelihood of obtaining exactly the same flavour twice running. Should cheese become too dry to be agreeable, it may be used for stewing, or when grated cheese is wanted.

To remove Ink-stains.— Get a pint cup, or narrow-topped jug, full of boiling water ; place the stained part (of the linen, &c.) on the top of the cup ; dip it in, draw it tight over the top of the cup, and, while wet and hot, with your finger rub in a little salt of sorrel. The acid should remain on the linen for half-an-hour before it is washed. As salt of sorrel is a powerful poison, the paper should be marked POISON, and kept carefully locked up when not in use.

To clean Decanters and withdraw Stoppers.—There is often much difficulty experienced in cleaning decanters, especially after port wine has stood in them for a time. The best way is to wash them out with a little pearlash and warm water, adding a spoonful or two of fresh-slaked lime, if necessary. To facilitate the action of the fluid against the sides of the glass, a few small cinders may be used. Another annoyance which frequently occurs, is that the stoppers of glass bottles and decanters become fixed in their places so firmly, that in the attempt to remove them, the necks are sometimes broken. In such cases, knocking the stopper gently with a piece of wood, first on one side, then on the other, will generally loosen it. If this method does not succeed, a cloth wetted with hot water and applied to the neck, will sometimes expand the glass sufficiently to allow the stopper to be easily withdrawn.

China is best cleaned, when very dirty, with finely-powdered fuller's earth and warm water ; afterwards rinsing it well in

clean water. A little clean soft soap may be added to the water instead of fuller's earth. The same plan is recommended for cleaning glass.

To clean Plate.—A flannel and soap, and soft water, with proper rubbing, will clean plate nicely. It should be wiped dry with a good-sized piece of soft leather.

White Satin.—Stone blue and flannel will make white satin look nearly new, especially if rubbed afterwards with crumbs of bread.

Blond Lace.—When blond lace gets tumbled, breathing upon it, and afterwards shaking it, will be found to answer the purpose of an iron, without chance of making the lace look yellow, as it probably would be by the use of an iron. There is no necessity for unpicking the lace.

To make Cloth or Outer Clothing of any description Waterproof.—Take a quarter-of-an-ounce of *yellow* or *Castile* soap, one gallon of rain water, boil for twenty minutes, skim, and when cold, put in the cloth or garment; let it remain soaking twenty-four hours; take it out, and hang to drain; when half dry, put it into the following solution:—Alum, half-a-pound; sugar of lead, quarter-of-a-pound; dissolved in four gallons of rain water. Let the cloth be thoroughly soaked, and then hang to dry. This process entirely destroys the capillary attraction in the fibres and threads of the cloth, and the rain or wet pours off the surface without lodging or penetrating through the cloth: the solution has *no effect* in *altering* the texture or appearance of the cloth or article immersed. Great care must be taken as regards the sugar of lead, not to leave it where children or any persons ignorant of its qualities can get access to it, as it is a powerful poison.

To make an Oilskin Coat or Wrapper.—If a stout coat or wrapper is wanted, let the material be strong unbleached or brown calico. If a light one is preferred, make use of brown holland. Soak it (when made) in hot water, and hang to dry; then boil ten ounces of India-rubber in one quart of *raw linseed oil* until dissolved; (this will require about three hours' boiling,) when cold, mix with the oil so prepared about half-a-pint of paint of any colour which may be preferred, and of the same consistency as that used for painting wood. With a paint brush lay a thin coat over the outside of the wrapper, brushing it well into the seams; hang it to dry in a current of air, but sheltered from a powerful sun. When *thoroughly* dry, give it another coat; dry as before, and then give a third and last coat: the wrapper, when *well dried*, will be ready for use.

To make a Plum-pudding for Sixpence.—Take half-a-pound of flour, half-a-pound of currants, half-a-pound of carrots grated, half-a-pound of potatos grated, a quarter-pound of suet chopped, and a little seasoning. Mix them together, and boil in a basin for an hour and a-half. You will then have an excellent and cheap pudding.

To restore Tainted Game.—If at any time feathered game has become tainted, pick and draw the birds as soon as possible, and immerse them in new milk. Let them remain in this until next day, when they will be quite sweet and fit for cooking. The milk must be thrown away.

How to light a Coal Fire.—A considerable saving of time and trouble might often be effected, if housemaids would attend to the following rules in lighting a fire:—Clear the grate well from ashes and cinders; then lay at the bottom of it a few lumps of *fresh coal*, about the size of ducks' eggs, so as not wholly to obstruct the air passing between the bars on which they are placed. This done, put a small quantity of waste paper or shavings next upon the coal; then a few sticks or pieces of split wood, placed carefully above it, so that they may not project between the bars; then a layer of the cinders you have before taken from the grate; and next, a few small lumps of coal on the top. Take care to *complete* this process before applying the light, which may easily be done afterwards by means of a lucifer match, and you will seldom fail to have a good fire in a few minutes.

[Nothing is easier than to light a fire in the way here recommended, but the coals and cinders must be laid in place by hand, and not thrown in anyhow with the shovel. If the kindling wood be green or damp, it should be dried over night, as a more miserable task cannot be attempted than to light a fire with damp materials. Pine wood split up small, such as is sold

in London, is the best for lighting a fire. Patent wood, prepared with rosin, has, of late, come largely into use. It is sold in clumps at a farthing each, and the half of one, with four of the pine sticks, are sufficient to kindle a fire.]

ODE TO CHEERFULNESS.

Lovely Nymph! with eye serene,
Dimpled smile, and frolic mien;
Come, with airy step advancing,
Come, with blooming Hebe dancing;
O'er the meads I see thee straying—
Youth and Sport around thee playing—
Gay Content, thy sister fair,
Twines a garland round thy hair.
Thine the lips of roseate dye;
Thine the pleasure-sparkling eye;
Thine the cheek that softly glows,
Brighter than the blushing rose!
Guide me to thy fav'rite bow'rs,
To deck thy rural shrine with flow'rs.
In thy lowly sylvan cell,
Peace and Virtue love to dwell;
Ever let me own thy sway
Still to thee my tribute pay.
When Zephyr waves his balmy wing,
To kiss the sweets of May;
When the soft melodies of spring
Resound from every spray;
With thee, sweet maid! I'll rove along,
And tread the morning dews;
To hear the woodlark's early song,
To court the laughing muse.
With thee I'll rove, when summer pours
Her treasures o'er the land;
When fair Pomona sheds her stores
With kind luxuriant hand;
When autumn, bearing golden sheaves,
Delights the happy swain,
And softly paints the fading leaves,
And crowns the fertile plain.
And e'en in winter's hoary reign,
I'll wake my festive lays;
Thy look shall prompt th' enliv'ning strain,
And 'brighten at the blaze!'
I court thee in the vernal hours
Of life's enchanting morn;
Thy hand shall strew my path with flowers,
And steal away the thorn:
But when the dawn of youth is fled
The spring of life so fair,
Ah! wilt thou then benignly shed
Thy placid beams around my head,
And steal my thoughts from care?
Yes, gentle power, thy heavenly ray
Shall cheer my morning bright;
And e'en in life's declining day,
Shall gild the dark and thorny way
With mild celestial light. —Mrs. Hemans.

FAMILY SECRETS.

PARTICULAR FRIENDS.

Friendship is a choice thing — some famous writer calls it the medicine of life—and a little good medicine is often needed in this rough world, where we meet with many a rub and blow from others, and often smart with pain, or languish in disease, brought on by our own follies and faults. But it would be a sad, and might be a fatal mistake if, instead of medicine we should take poison, or even rely on that as medicine which possesses no efficacy at all. Such mistakes are not uncommon in the matter of friendship: we take medicine to do us good, and when we speak of having a friend—a particular friend—it is worth while to inquire what good thing this friendship has done us.

The Opposite Neighbours. — Mrs. Green, the weaver's wife, and Mrs. Hall at the bakehouse over the way, were particular friends: almost every day one or the other might be seen running across the road for a little friendly chat, generally intending not to stop many minutes, but seldom returning within the intended time. This friendship was very expensive in point of time and neglect of duties, and yielded very little profit in return. Mrs. Green once ran over with a meat pie to be baked—seeing her friend in the back room she could not help going in for a minute's chat. But chat is a boundless sort of thing: whilst the friends went on from one subject to another, time imperceptibly slipped away. At length Mrs. Green bethought herself of home, and abruptly broke off the conversation, saying—'But I must make haste home or the potatos will not be ready when my husband comes to his dinner.'—'Stay a minute, Mrs. Green,' interposed the

baker, 'you may as well take your pie with you ; my oven works as fast as your mill-clack.' Away she bustled as fast as she could run ; but bustling cannot fetch back lost time—the fire was out—the potatos raw—the cloth not laid—the breakfast things not cleared away—her husband come home, and sadly put out, as any man would be, to have his dinner in such discomfort. He called the baker's wife an idle gossip, and wished her at New York, or any where else, rather than living so near his dwelling as to break up the peace and comfort of his family by her particular friendship for his wife.

Not very long after this, the baker's wife paid her neighbour a friendly visit: her elder children were at school—the little one, who could just run alone, she had put to sleep in its cradle in the nursery. As she shut the nursery door she said to herself, 'I need not hinder to tell Sally that I am going out, I shall be back long before the child wakes, she is sure to sleep an hour.' In about an hour and a-half Sally ran over to Mrs. Green's to inquire if her mistress were there, for master had come home and wanted his tea in a hurry. Mrs. Hall hastened home, wondering why her husband wanted tea so early ; but before she could put her wonder into words, or be informed that it was considerably past the regular tea-time, she was alarmed by screams from the nursery. She rushed up stairs and found her child in flames: on awaking and finding itself alone, it had somehow got out of its cradle and made its way to the fire-place, where the flames caught its clothes. The poor child's life was spared, but its sufferings were severe, and its face and neck much disfigured—and these are but specimens of the results of particular friendship, which, in other words, means nothing more than a habit of spending time together in idle chat.

The Fellow-Workmen.—James Moss and Edward Slade are 'particular friends.' They were thrown together by working for the same employer, and, as their dwellings lay in the same direction, they often joined each other on the way to and from work. By degrees they got to take a pipe together, sometimes at one or other of their houses, sometimes at the public-house ; at first this was only occasional, but in time it became a regular habit. Perhaps for the last two or three years scarcely a day has passed without this sort of friendly intercourse. But what is either party the better for it? Are the characters of the friends improved, or their interests promoted by it? Perhaps this matter may not have engaged their own attention, but it is not overlooked in their families, nor indeed can it be. Moss's wife is a sharp-tempered woman, and many an angry squabble has she raised with her husband about his staying late at the public-house and spending the money away from her and the children. Mrs. Slade is a quiet woman, not disposed unkindly to upbraid her husband for conduct which she cannot approve, still less to talk to other people of his faults ; but she has misgivings that her husband's sallow looks and frequent bilious headaches are connected with his changed habits. For herself, she certainly does not look so rosy and cheerful as she used to do, when she was often getting a pleasant country walk with Edward and the children on a fine summer evening. Her children are always neat and clean, but they are not so well shod as they used to be, nor do they so often appear at school with a new hat or frock. As to a new gown or bonnet for herself, it is very long indeed since Mrs. Slade has been able to buy one, or has had one kindly brought in for a present—though such things have happened formerly. She can scarcely help thinking that the money spent in company with James Moss, on tobacco and strong beer, has something to do with lessening the comforts of the family. But there is something that grieves her much more than the scantiness of clothing ; it is, that her husband seems less fond of home than he used to be before James Moss and he were such particular friends. She sighs when she thinks what pleasant winter evenings they used to have when they gathered round the fire, and Edward read to them some entertaining book from the vestry library, or heard the children repeat what they had learned at school. The elder children remember these things too. They sometimes remark, that father never has time to hear them now, and feel a confused consciousness that many things are altered—not for the better. Such remarks cannot always be turned aside from the father's ear, though the

mother always tries to do so. The gentle address which she discovers on these occasions, together with her generally meek and quiet spirit, and readiness to suffer long rather than complain, may, it is hoped, make a good impression on her husband, and lead him to reflect whether the friendship of Moss is worth what he sacrifices for it—for Edward Slade is not wanting either in good sense or good feeling, and much more likely to be wrought upon by the good temper of his wife, than by angry contentions and bitter reproaches such as Mrs. Moss heaps upon her husband.

The Brewer's Clerk.—Robert Ryman and his wife—as worthy a young couple as need be—were well-nigh brought to ruin by 'particular friends.' Ryman's clerkship at the brewery, and his wife's little property together, brought them in about £150 per annum—a snug little income, sufficient, as they calculated, to support them in comfort and respectability, even allowing for probable contingencies. They did not intend or wish to keep much company, yet they were, as they thought, unavoidably drawn in to see people. To say nothing of a few dinner-parties on special days, just for relatives and a few particular friends—their home being situated rather more than a mile from the entrance of the city, just a convenient distance for a walk, became a common resort of friends and acquaintance, 'looking in in a friendly way.' Scarcely a fine afternoon and evening passed without some chance-comer of this kind, the original acquaintance often introducing one or two companions. Both the young people were of a friendly, hospitable disposition: it was natural to invite the callers to stay to tea or to supper. The best that the house afforded was set on the table—perhaps that which was intended for the next day's meal—or a glass of wine, or ale, or porter, was brought out, which would not otherwise have been thought of. The expense was but trifling in itself, and they would have thought it mean to withhold it. But 'many a little makes a mickle,' and though the daily cost was scarcely noticed, it was plain at the end of the year that the calculated expenses of housekeeping had been exceeded by at least a guinea a-week. This was accounted for by the very high price of provisions; the family manager, too, confessed herself inexperienced, and hoped to do better another year; and several little self-denying retrenchments were resolved on, and put in practice. But this was only like 'stopping one hole of the sieve:' the main cause of the mischief remained untouched and unobserved. In the second and third years matters became worse, and disgrace and ruin threatened. Poor Ryman's depression of spirits was noticed by his employer, a shrewd yet kind-hearted and considerate man. He encouraged the confidence of his faithful servant—for happily the principles of the young man stood firm; he had not, as too many in like circumstances have done, resorted to any crooked means to relieve himself of his embarrassments. There was no difficulty in the way of disclosing everything to a real friend, and such his master proved himself to be. 'Ryman,' said he, 'I must get you to move. I want a confidential person to reside on the premises. The rooms adjoining and over the counting-house are airy and convenient, and sufficiently spacious for your family. It will be more for your interest, and quite as well for your health, to walk out a mile or two for country air, as to keep a sort of public-house a mile or two off for the accommodation of town loungers. Come cheer up, man: we shall get matters straight, now.' The kind suggestion was carried out. The young couple as it were began life again, somewhat wiser for their three years' experience. Their eyes were opened to the errors of their previous course; and they stood firm to their resolution neither to visit nor receive visitors until they had completely retrieved their affairs, which they happily succeeded in doing. By the end of the second three years, the burdens that had accumulated during the first, were more than cleared away: the income was found sufficient to meet the wants even of an increasing family, the parents of which, though they had shaken off a host of unprofitable acquaintances, found themselves not left destitute of real friends.

The Squire's Friends.—Time was when the particular friends of Squire Hill were almost as plenty as blackberries in the hedge. But that was when he had money, and lands, and houses, and wine-cellars, and horses, and dogs, and many other things to entertain them in their

own way. When all these fine stores, by their assistance, were squandered and gambled away, what became of their friendship? Which of them sought his company in a mean lodging, as they used to do in a stately mansion? Which of them, when his coat was shabby, did not pass by him in the street, and affect not to remember him? Which was there to speak a word of comfort to him in his sorrow, or to minister to him in his sickness, or to follow him to his grave? Not one. All the succour he received in adversity, was from those who never professed friendship for him in prosperity. True indeed is the saying, 'Prosperity gains friends, but adversity proves them.'

Emulation.—Mrs. Watson has a large circle of 'particular friends,' every one of whom, as well as herself, may be reckoned worthy, respectable, well-meaning people; and yet the probability is, that her friendships do her more harm than good, because she indulges in a spirit of vain emulation, to have and to do the same as her friends, whether or not it may be suitable to her circumstances, or good for her family. If Mrs. Fox has a new dress or bonnet for herself or her children, Mrs. Watson cannot any longer endure hers of last year, though but little the worse for wear. Mrs. Serle has a one-pair of stairs' drawing-room. This set Mrs. Watson upon contriving to have one too. It could only be managed by giving up her own front bed-room, and taking to that of the children, who were transferred to the attic, with the servant. There is no doubt whatever that the sacrifice has been injurious to the health of the family, and not favourable to the young people in other respects. But it was necessary, in order to carrying a point, viz., that Mrs. Watson should not be less genteel than her 'particular friend' Mrs. Serle. Mrs. Bland took her children to the sea-side; then of course Mrs. Watson must do the same. Her husband protested against the scheme, on the ground of its inconvenience in leaving the home and servants without a mistress; of its expensiveness, which he really could ill afford to meet; and of its needlessness, since if Mrs. Bland's reason for going was her children having had the whooping cough, their children had not had it. But whatever reasons might be alleged, poor Watson found it policy to yield, for the sake of peace. It is to be hoped, that an industrious, careful, peaceable man will not be drawn to ruin by his wife's mistaken notion that she cannot be well off without possessing and practising the same as all her 'particular friends.'

Tattling.—Mrs. Rose and Miss Turner are 'particular friends.' Much mischief is done by intimacy such as their's. Day after day they are in and out of each other's houses, so that it cannot be calculated with any degree of certainty where their meals will be taken. Whatever passes in one house is immediately conveyed to the other. Family secrets are found out, or disclosed in 'close confidence,' and 'with strict injunctions to secrecy.' In this way matters have got abroad which ought never to have transpired; important and lawful plans have been thwarted by premature disclosure; family discord has been occasioned, and reconciliation rendered more difficult, by the hasty, angry remarks of one party having been carried to the other—perhaps not directly, but in some way suffered to get known through the intervention of the 'bosom friend,' from whom it would have been deemed treason to keep back anything, however little legitimate concern she might have in it, or even though it could not be imparted without breach of confidence towards other parties having a positive claim. It is rumoured that Mrs. Rose and Miss Turner have lately had a violent falling out; and it is by no means unlikely. Such intimacies as these are generally as short-lived as they are mischievous, and often end in bitter enmity.

The Good Neighbours.—For many years the two families of Firth and Carr lived opposite each other. If a stranger had inquired whether they were friendly, any of the neighbours would have answered, 'O yes; they are very particular friends.' The parties themselves made no special professions of friendship, but were always ready to reciprocate sympathy, succour, and neighbourly assistance, when really needed and truly valuable. They rarely, if ever, met by appointment as visiting acquaintance, and habitually knew no more of what passed in each other's houses than if they had lived twenty miles apart. Yet the moment sickness or trouble entered either abode, it seemed by common consent to be understood that the opposite neighbours were the persons on

whom to call for sympathy and assistance, without fear of disappointment. In fact, though both parties were so fully employed at home as to leave little time for visiting, and less for prying, by that habitual close attention to the duties of home, each had their affairs so completely under control as to render it easy when circumstances really called for it, to make the requisite sacrifice of time for showing efficient kindness to a neighbour. A tacit compact seemed to subsist between them: 'If all goes on well, we do not expect often to meet, but if sickness or trouble arise, or circumstances in any way put it in our power to serve each other, we shall not be neglectful.' After more than twenty years' continuance of this neighbourly friendship, the Firths removed to a distance, a circumstance by which the Carrs considered themselves to have sustained an irreparable loss. The regret, indeed, was mutual, and those who, while living close together, had scarcely taken tea in each other's houses, made a journey of a hundred and fifty miles, principally for the sake of once more meeting their old neighbours.

GARDENING AND RURAL AFFAIRS.

Directions to Beekeepers for August.

On the Continent, and in some parts of our own country, it is usual to take bees to different places, in order that, as food fails in one part they may find a supply in another. Cotton says, 'In France they put their hives into a boat, some hundreds together, which floats down the stream by night, and stops by day. The bees go out in the morning, return in the evening, and when they are all back and quiet, on the boat floats. I should like to see this tried on the Thames, for no river has more bee food near its banks;—willows, the best bee food in spring; meadows, clover, beans, and lime trees, in different places and times, for summer. A hardy man, who could make his own boxes, though not up to hard work, might, I am pretty sure, gather, *through the mouths of his many thousand bees, enough to fill his own one mouth*, though it be somewhat larger. He might float softly *down* the river, as the flowers go off at one place and come on at another; and any bargeman would be glad, for the small price of one pound of Thames honey, to give him a tow *up*, when he wishes to go back. I should like to see it tried!'

In Yorkshire it is a common thing for cottagers who live near the moors to be entrusted with the hives of other persons who have not this advantage. They charge about a shilling for each hive; and during the months of August and September, these bees have a good honey gathering from the heather, then in bloom, and are afterwards returned to their owners, who reap a good profit from the visit their bees have made.

Whoever has the opportunity, will do well to send his bees to the neighbourhood of heaths, at this season. This is the great honey harvest month for you. Let us again urge the merciful recommendation—DO NOT KILL YOUR BEES do not take the honey by suffocating with brimstone. Fumigate with the fungus, or other substances, as we have recommended, and unite the bees to strong stocks, to stand the winter. Thus you get the honey, and yet save your bees. Now contract the entrance of the hives, to guard against robbers.

Hints for Farmers.

In harvesting corn prefer stacking: wheat, 'the farmer's chief hope,' and barley, are safer from vermin when on frames; the sample is always of a better colour, and you may cart it earlier for stacking than for the barn. Beans, without they lay some days before they are tied, must be in small sheaves, and then hardly any weather will hurt them. Turn the ram to the ewes for early fat lambs. Stock farmers now sell off their lambs and draft ewes. Wether flocks should now have good keep to forward them for turnips. Sows should farrow this month. If you have spare time, collect together the earth on which you intend to form your compost heaps; this can hardly be done with too much care. The practice of mixing earth with chalk or marl, and well mixing them by the plough or the spade for some months before the dung-heap is formed on it is excellent. These earth-beds should be formed deeper at the sides than at the centre, to allow of some of it being spared for covering over the heaps.—*C. W. Johnson.*

A few really good Gooseberries.

Bright Venus, Taylor's.—A middling-sized berry, white, obovate, or egg-shaped, the larger portion being next the stalk, hairy, and of first-rate quality; the tree has erect branches, and the fruit hangs till quite shrivelled. It is sometimes called Golding's White Sergeant.

Champagne, Red.—A small, roundish, red, and hairy fruit, very rich in flavour, may be kept good till a very late period: the tree has remarkably upright branches. Other names—Dr. Davis's Upright, Countess of Errol, and sometimes Red Turkey, and Ironmonger.

Champagne, Yellow.—Of the same general character as the last, except that it is a yellow fruit, and in good soil somewhat larger. Known also as Hairy Amber.

Crown Bob, Melling's.—Large, oblong, red, hairy, of first-rate quality, and rather early; the tree is of spreading habit, and a good bearer.

Early Green Hairy.—In addition to the name, it is only necessary to describe this as a small round fruit, very good, and one of the first to ripen; the tree is rather small, spread-

ing, and a great bearer. Other names—Early Green, and Green Gascoigne.

Farmer's Glory, Berry's. — An excellent variety, with large, obovate, red and downy fruit, very good in flavour, and generally an abundant bearer; the tree has pendulous, or hanging branches, which should be kept thin.

Glenton Green.—Of medium size, oblong, green and hairy, as also are the young leaves; the branches are pendulous, and generally bear well. Synonyme—York Seedling.

Golden Fleece, Part's.—Large, oval, yellow, and hairy, an improvement on the old Golden Drop, from which it differs in being better flavoured, rather larger and longer; the tree has pendulous branches, and bears well.

Heart of Oak, Massey's.—A fine large, oblong green fruit, quite smooth, and of rich flavour, and in addition, being a great bearer, should be extensively cultivated; the tree has spreading pendulous branches, which to produce the best fruit should be kept thin.

Hebburn Green Prolific. — Resembles the last, except that is rather smaller; the tree has an erect habit, and is a most abundant bearer.

Huntsman, Bratherton's.—Large, roundish, deep red, and hairy; though not quite first-rate in flavour, this variety is very generally grown for the large size and abundance of its fruit; the tree is of erect habit. Also known as Speechley's Rough Robin.

Ironmonger.—This when obtained true is a valuable kind; it may be known by its small, nearly round, hairy and very deep red fruit; the quality is of the best, and the tree a most abundant bearer, with spreading branches and downy leaves. Also known as Hairy Black, and is often confounded with the Red Champagne.

Jolly Tar, Edwards'.—A very good variety, with larger, obovate, smooth green berries; the tree has a pendulous habit, and bears well, is often in the prize lists of gooseberry shows.

Large Early White. — An obovate downy fruit, much grown for markets because of its early character and the abundance produced; the flavour also is good; the tree is erect, and may therefore be planted rather thickly.

Laurel, Parkinson's.—Large, obovate, pale green, almost white, downy and of excellent flavour; tree erect, and bears well. Other names — Green Laurel, Green Willow. A very close resemblance exists between this and two other kinds, known as Woodward's Whitesmith, and Boardman's Lively Green.

Miss Bold. — A good old sort, with very early, middling sized, roundish, red and downy fruit; tree spreading, and a great bearer. Often called Pigeon's Egg, and sometimes confounded with the Red Walnut.

Queen Charlotte, Peer's.—An oblong fruit of medium size, greenish white and hairy, of excellent flavour, and generally produced in fair quantity; the tree is of erect habit.

Red Oval.—A large hairy deep red fruit, of average quality, and plentifully produced; tree spreading.

Red Rose. — This is longer than the preceding, less hairy, and of better flavour; the tree is pendulous.

Rifleman, Leigh's.—Large, roundish, hairy, and red, of first-rate flavour; the tree is erect, a good bearer, and trained against a north wall the fruit may be kept till October. Known also as Allcock's Duke of York, Yates' Royal Anne, and Grainger's Admirable.

Roaring Lion, Farrow's.—This also is a late kind, and one of the largest; the fruit is oblong, red and smooth; its flavour, however, is only second-rate, and the tree is not so prolific as some others: branches pendulous. Known also as Great Chance.

Rumbullion.—Small, roundish, pale yellow, and downy, grown chiefly for use in a green state, the tree being an immense bearer; when ripe the fruit is of inferior quality; the branches are erect and do not require much pruning. Other names—Yellow Globe, Round Yellow.

Shakespeare, Denny's. — Large, roundish, red, and hairy, of excellent quality, and generally producing a fair crop; branches erect.

Smiling Beauty, Beaumont's.—A large, oblong, smooth yellow fruit, good in flavour, and abundantly produced; the thin skin of the fruit, however, does not admit of its keeping; branches pendulous.

Snow-ball, Adam's.—Large, roundish, white and downy, flavour first-rate: tree pendulous, and a fair bearer.

Tantararara, Hampson's.—Of medium size, obovate, deep red, and downy, as also are the leaves; flavour rich and pleasant; tree erect, but not a good bearer.

Walnut Green. — An excellent sort, with middle-sized, obovate, deep green smooth fruit; tree spreading, and an immense bearer, much grown for market. Other names—Belmont Green, Smooth Green, Nonpareil.

Warrington, Red.—Universally grown and esteemed both ripe and unripe; fruit large, roundish oblong, red, and hairy; flavour good, and altogether one of the best late varieties. Other names—Aston, Seedling, Volunteer.

Wellington's Glory.—Large, roundish, white and downy, skin thin, flavour very good; tree erect, and a great bearer

Whitesmith, Woodward's —An excellent old sort, fruit large, roundish oblong, white and downy, of excellent flavour, and abundantly produced; tree erect, and may be planted rather thickly. Other names — Sir Sydney Smith, Hale's Seedling, Lancashire Lass, Sheba, Queen, Grundy's Lady Lilford.

VARIETIES.

SAVE—SAVE—SAVE.—What is there a man cannot save and improve? By curbing appetite and restraining passion, by observing prudence and maintaining regularity, he may save his health, husband his strength, and thus preserve the springs of life, as constant fountains of energy and happiness, to sustain and cherish him under every labour and every hardship. He may save a fortune by industry and denying himself needless indulgence, and he may find a pure enjoyment in devoting it to noble uses. Time—the indolent might make wealth of it—the most industrious improve upon their use of it. It comes to us in brief minutes, to show us that present application is the sole duty required of us; yet these so weave in and make up our days and years that misimprovement of the present is always at the expense of the future. One of the hours each day wasted on trifles or indolence, saved, and daily devoted to improvement, is enough to make an ignorant man wise in ten years—to provide the luxury of intelligence to a mind torpid from lack of thought—to brighten up and strengthen faculties perishing with rust—to make life a fruitful field, and death a harvester of glorious deeds.

WIT is not the produce of study; it comes almost as unexpectedly on the speaker as on the hearer; one of the first principles of it is good temper: the arrows of wit ought always to be feathered with smiles—when they fail in that they become a sarcasm.

CHEAP GAS.—At a meeting on the subject of gas in the metropolis, Mr. Bovill explained a scheme for distilling the coal at the collieries, and conducting the gas to London by a great pipe, instead of carrying the grosser material of coal by ships and railways. By thus moving a light weight instead of a heavy one, Mr. Bovill calculated that gas might be supplied in London at 3*d.* per 1000 feet, instead of the present price of 6*s.* and upwards, or even the reduced price of 4*s.*

PHYSICAL EDUCATION OF CHILDREN.—While their limbs are soft and feeble, of course you must be strength and safety to them; but when they arrive at a free use of their limbs and senses, let them fully enjoy that free use. We English are behind almost every nation in the strength and hardihood of the race of children. In America I have seen little boys and girls perched in trees overhanging fearful precipices, and crawling about great holes in bridges, while the torrent was rushing below; and I could not learn that accidents from such causes were ever heard of. In Switzerland I have seen mere infants scrambling among the rocks after the goats—themselves as safe as kids, from the early habit of relying on their own powers. In Egypt and Nubia I have seen five-year old boys poppling about like ducks in the rapids of the Nile, while some, not much older, were not satisfied with hauling and pushing, as our boat ascended the cataract, but swam and dived, to heave off her keel from sunken rocks. Such children are saved from danger, as much as from fear, by an early use of all the powers they have; and it would be a happy thing for many an English child, if its parents were brave enough to encourage it to try how much it can do with its wonderful little body.—*Miss Martineau.*

ANCESTRY.—To be descended of wealth and titles fills no man's head with brains, or heart with truth; those qualities come from a higher cause. 'Tis vanity, then, and most condemnable pride, for a man of bulk and character to despise another of less size in the world, and of meaner alliance, for want of them; because the latter may have the merit, where the former has only the effects of it in an ancestor; and though the one be great by means of a forefather, the other is so too, but by his own. Then, pray, which is the bravest man of the two?—*William Penn.*

CHANGE OF COLOUR IN FISH.—The change of colour in fish is very remarkable, and takes place with great rapidity. Put a living black burn trout into a white basin of water, and it becomes, within half an hour, of a light colour. Keep the fish living in a white jar for some days, and it becomes absolutely white; but put into a dark-coloured or black vessel, and although on first being placed there the white-coloured fish shows most conspicuously on the black ground, in a quarter of an hour it becomes as dark-coloured as the bottom of the jar, and consequently difficult to be seen. No doubt this facility of adapting its colour to the bottom of the water in which it lives, is of the greatest service to the fish in protecting it from its numerous enemies. All anglers must have observed, that in every stream the trout are very much of the same colour as the gravel or sand on which they live: whether this change of colour is a voluntary or involuntary act on the part of the fish, I leave it for the scientific to determine.—*St. John's Tour in Sutherlandshire.*

WRONG-DOING.—When once a weighty sin hath trod down the fence, each petty vice will easily step over. A breach once made, the city is in danger to be lost. To think we shall be wiser by being wickeder, is the simple mistake of man. Ignorance herein is better than knowledge; and it is far better to want discourse than guilt. Alas! we know not what rich joys we lose, when first we launch into a new offence. The world cannot re-purchase us our pristine clear integrity.—*Feltham.*

HOME EDUCATION.

PART III.—BODILY TRAINING.

'Poor thing! How sad it seems that she should die so young! What a blow it must be to her friends; and what a loss to society! So clever as she was, and so amiable, and so highly educated!'

'Yes, I have understood that Margaret was an extraordinary child!'

'Indeed she was. At five years old she could read almost any book in her own language. At six or seven she was well versed in grammar, geography, and history. Then she began to learn French and Italian, and soon acquired great facility in those languages. Extraordinary pains were taken to instruct the dear girl in music, but not so successfully: she had but little ear for it. However, she could play on the piano better than most children of her age. Besides all these matters, she was very quick at needlework, and executed several beautiful designs in wool; and ——'

'But, pardon the interruption; among other accomplishments, was the girl taught to PLAY?'

'O yes, certainly. I thought I mentioned that she spent much time in learning to play on the piano.'

'You do not comprehend me, my friend; I ask, was Margaret taught to PLAY,—to romp, to run, to skip, to brace her limbs and strengthen her lungs, and quicken the circulation of her blood by thorough exercise? Was she in the habit of making the air ring again with happy, hearty, merry, clear, and loud laughter? Could she jump, and swing, and clamber, and ——?'

'My dear sir, what very odd questions. I was speaking about the poor child's *education*.'

'And so am I.'

'Education!—Stay, I see your drift. Well, then, to tell the honest truth, I fancy there might be a deficiency here. I believe Margaret never did play like most children. Perhaps she had no inclination for it. At all events, she was kept so closely to more important matters, that there was little time for amusement.'

'Amusement! More important matters! I am compelled, my dear friend, to differ from you. Surely life is important; health is important too. I will not say that *nothing* is more important than life and health; but I do say, that no education can be called *good*, in which is neglected that PHYSICAL TRAINING which, under ordinary circumstances, preserves health and prolongs life.'

'Do you think, then, that Margaret might still be alive, if another system had been followed in her education?'

'I do.'

It is not worth while recording any more of this conversation, which speedily glided into a metaphysical and theological discussion; but it has been worth while, thus far, to introduce it. Not that one in a thousand of our readers is likely to have a child either so highly gifted, or so highly educated, as the Margaret just spoken of was supposed to be; but for the purpose of illustrating a principle.

'A sound mind in a sound body;'—a great blessing this; and one which all parents should try to secure for their children. Excessive mental exertion is bad for any child. 'The physical system should be the first object. If the order of nature be reversed, the mind as well as the body will suffer. It would often be easy for a skilful parent to make a child a prodigy; but a judicious parent will never attempt it. Premature growth of mind will seldom, if ever, be found to spring from a vigorous root. We do not doubt that many have sunk into an early grave through the unnatural development of their faculties, and the excessive excitement of mental and physical sensibility, which is usually the effect of it. Let it be, then, the care of the parent, to guide and direct, rather than to force into a right channel the immature mental faculties of the child. But, by all means, would we earnestly recommend, to go hand in hand with the *moral* training already glanced at,—a health-preserving and vigour-imparting education of the body.

To be more explicit, we would say, in the first place—if circumstances give the freedom of choice—do not send children of an early age to school. The many hours' confinement, the frequent close at-

mosphere, and the constrained posture connected with most schools for young children, can but be injurious to their health. Their time would be far better employed in acquiring, by almost constant exercise, the bone and muscle which they will want in future life. The above objection, however, does not altogether apply to infant schools, which, when properly conducted, especially provide for the physical training of the scholars, combining healthy play with learning, and are generally open and well ventilated. It is a source of rejoicing, that parents whose time and energies are so occupied that they cannot attend to the well-training of their children at home, are enabled so advantageously to secure it abroad. Were all schools for older children conducted on the same principle, (as they might be,) so as to carry out a system of thorough physical as well as mental instruction, and to encourage, rather than repress, bodily activity, the moral and intellectual, as well as the physical results, would be most blessed.

'What, would you advise that boys and girls should grow up idle dunces?'

By no means. But let it be borne in mind, that there are dunces, and great dunces too, among those who can read and write, as well as among those who cannot. There are educated, as well as uneducated dunces, and among the former will be found many who, at one time, were thought to be marvels of precocious cleverness.

'I don't know what to do with this child,' said an anxious mother, the other day. 'Two years ago she got on so nicely with her book. She could read almost anything, and seemed so fond of it; and now, I cannot get her to learn a syllable: and it is such work to make her go to school.'

The child was a poor little stunted thing of six or seven years old. She looked pale, sickly, and melancholy. She had evidently been over-schooled.

'What shall I do with her?' continued the mother.

'Lock up her books,' replied the friend thus appealed to: 'release her from school for a few months; give her plenty of exercise in your nice garden here. Keep her as much as you can in the open air; and take my word for it, all will come right again in good time. Do not be afraid of her becoming a dunce. She wants health and strength now: a year or two hence, she will want learning.'

Many a child, we firmly believe, has been blighted in intellect, in having its young and weak powers too severely tasked. It is well, in all cases, to avoid extremes; but, as a general rule, a course of *school* education commenced at eight years of age, is vastly more satisfactory in its results than one begun at four.

Let us give an example from actual and somewhat anxious observation;—we may well say anxious, for it was a parent's experiment on a first child.

George was seven years old. He had never been to school. His very slight modicum of book-learning had been given him by way more of recreation than real instruction. He knew all the letters of the alphabet; and could, with difficulty, spell a few common words; but as to reading, that was quite out of the question. To please himself, he had occasionally been allowed to scratch paper with a pencil, or to blotch it with pen and ink; but no attempts had been made to teach him to write. Probably he knew enough of arithmetic to tell that two and two make four, and that four and six make ten; but beyond that, if our memory serves, he knew little or nothing. In short, he was—or was considered by *some* of his friends—a dunce, a complete and unmitigated dunce; and reflections not the most complimentary were cast upon George's parents for neglecting the *education* of their son.

In their estimation, however,—and it was an estimation not lightly formed—the boy's education had not been neglected. His limbs, naturally weak and puny, had been enlarged and strengthened, and his relaxed muscular system had been braced, by almost all kinds of bodily exercise within reach. He was a rare hand at cricket, for a boy of his age; could climb a tree, not quite like a monkey, but something near it; plunged fearlessly, head over heels, into the water, whenever an opportunity offered for bathing; and, to use, with some little latitude, the words of Cobbett, (with whom, on all points, we do not precisely agree,) 'he had learned to ride, and hunt, and shoot, and fish, and look after cattle and

sheep, and to work in the garden, and to feed his dogs, and to go from village to village in the dark.' All these educational matters—or rather, so many of them as George had had opportunity of acquiring, had been learned in the companionship, or under the eye, of his father, who thought it no waste of time to take a part in the 'idle occupations of a boy, who ought'—so said or thought uncles, aunts, cousins, and many others—'to be at school, learning his book.' In fact, George was a doomed dunce, and his parents would, by-and-by, know it.

We must add, however, that the accomplishments just mentioned were not the only things which, at seven years old, George had learned. He had been taught the importance and necessity of truth, obedience, self-denial. He had the advantage of a happy home, and had learned to prize family affection. If he did not know how to read books, he knew what was *in* books—and books of a superior order; for he had learned regularly to *hope for*, and he as regularly enjoyed an hour's reading from either father or mother, every evening before he went to bed. What was read was explained to him, and he understood it, and retained it in his mind. He was encouraged to ask questions, and those questions were never put off with 'Don't talk such nonsense.' 'Do be quiet.' 'How can you be so foolish?'

Well, the boy became older every day, and the experiment was soon to be put to the test. 'Will the boy have been injured by the system of education we have adopted?' asked his parents, with solicitude, but yet in good substantial faith and trust that they were right. At about eight or nine years of age the boy went to school, to one who understood and approved the course which had been adopted. For a little while he was marvellously in the rear of boys years younger than himself, who had had the questionable advantage of an earlier induction into the elements of school knowledge. One by one, however, the slight barriers (slight to him, because his *mind* was not uneducated)—these slight barriers were overleaped; the boy *knew what he was about;* and every step he took was a step, and a pleasant step forward. His intellect had been cultured; and the fruits of that culture were seen in his onward progress. By the time he was twelve years old, George—to all useful intents and purposes—was farther advanced in education—school-education—than many a youth of fifteen.

'We *were* right, after all,' said his father.

This slight sketch is by no means offered as a perfect specimen of Home Education, but rather as an illustration of our meaning, when we say,—Give, simultaneously, or at one and the same time, a *Moral* and *Physical* training to children, and let, also, the intellect be judiciously dealt with; but do not, as you value both body and mind, fancy that sending a boy or a girl to school, is the only, or the best and surest way of taking care of the child.

But if an early course of set learning be objectionable, what shall be said of infant *labour?* What shall be said!—why, that it is most unnatural, and therefore most pernicious. It is truly mournful to see young children dragging on a miserable existence at constant task-work, whether at home or abroad, in house or in mine, in factory or—we would add, in field, only that infant labour in field is pretty nearly impracticable, and therefore unpractised.

'But our children *must* work, or they would have nothing to eat,' we may be told.

Nay, then, what must be, must; and there is an end of it. We can only deplore the necessity which demands a sacrifice so mighty. Meanwhile, it would be well to re-consider whether the necessity really exists, or whether, by some inferior sacrifice, it might not be avoided.

We would not be misunderstood here. Constant and active employment of body or mind, or both, is the life-spring of happiness, and the source of health and prosperity, whether in man, woman, or child. So far from pleading that children should be exempt from this, we would say, unless they be trained to useful occupation, and to the love of it, there is little hope for them, here or hereafter. But what is useful occupation? Not drudgery; not a mechanical round of wearisome work, which overstrains the feeble powers of infancy, and leaves the mind vacant; which inspires hatred to

reasonable labour in after life, and instils the poisonous notion, that freedom from toil, especially if combined with sensual gratification, is the very height of human felicity.

Useful occupation! Yes, by all means should every child be usefully occupied—usefully for others, or usefully for himself. Every thing is good in its season; and a girl of tender years may be taught to brush and dust, to scrub and scour, to wash and bake, and cook and nurse a baby, if there be one to nurse, to make a fire, and to make a bed. All these are useful occupations, and are good bodily exercise. Then, a boy, of equally tender age, may learn to run on errands, to fetch and carry, to chop wood, to clean his own boots or shoes, and his father's, and mother's and sister's too; he may dig, and hoe, and weed, and rake, if there be a garden; and, besides these 'useful occupations,' there are many other odd jobs about house and home, to which both boys and girls are competent, and which, under right training, will be pleasurable employments, and advance, rather than retard, the healthful progress of mind and body. But we would expressly and urgently enforce one condition with respect to these labours:—they should be frequently remitted, or set aside, and ought never (with young children) to be long continued. What might be, and would be the happy employment of an hour, will be irksome for twelve or six hours; and the irksome labour of one day would soon become the hated task-work of life; and then farewell to the fond expectations founded on a Home Education.

Useful occupations!—Play—we repeat it with confidence; we lay stress upon it;—Play—hearty play is useful occupation. The boy who plays with a will, will by-and-by work with a will. He will have the spirit to do it; and the mind to do it; and the games of his childhood will help to give the vigour to his bodily substance which will enable him to do it. Never think that a boy is an idle hopeless boy when he can throw his heart and soul, to use a common expression, into the healthy sports of boyhood. And never let the father be ashamed to be seen, or fancy he is wasting time which might be better spent, when he is directing, sharing in, and thoroughly enjoying—for their sake—an hour's boisterous and hard-working game of out-of-door play with his own children.

Nothing in the physical training of children is more important than fresh air. They should be taught to use it, and to like it. Exercise, however good in itself, if taken within doors, or in a confined atmosphere, loses half its value. On this account, we earnestly recommend that every proper opportunity be taken of giving exercise in the open air. And on this account, also, it is greatly to be regretted that so large a proportion of parents and children, especially of the industrial, or perhaps we should rather say, the day-working class, live in crowded lanes and courts, where pure air can scarcely be breathed. *All* parents, however, are not at this disadvantage; and many who are, might possibly improve their circumstances in this respect; while, in every case, the best may be made even of a bad situation, so as to make it yield a greater proportion of bodily sustenance, or, at least, a less proportion of bodily injury and destruction than usually accompanies a vitiated atmosphere. At all events, we can but observe that the physical training of a Home Education will be far from complete where the children are not taught the imperative necessity, for future health and prosperity, of breathing, and of loving to breathe, uncontaminated air.

It is more desirable to enforce principles, which, in their nature, are unchangable, than to dictate particular modes of action, which admit of endless variations, and cannot, all of them, be adapted to all circumstances. For this reason, we abstain from minute direction as to the kind and manner of open air physical exercise to which children should be trained, feeling convinced that every wise and conscientious parent can best judge of these matters, according to the situation in which he is placed. One caution may, however, be given. It is a rule of universal application that 'evil communications corrupt good manners,' and even the health of the body had better suffer, than that the contamination of wickedness should enter the mind of a child. But, after all, it is questionable, how far children, especially boys, should be kept from companionship with those of their

own age and circumstances, from dread of consequences. In life, man must meet and jostle with man—the good and the bad, the virtuous and the vicious together; and all,—perhaps the best—that can be done for the young is first to fortify their minds with good principles; attach them to yourself by ties of affectionate confidence; and then, watch and regulate, rather than altogether restrain intercourse with their fellows.

Children should go to bed early. They will then rise early. A most essential item this in the home education of the young. A habit of early rising, early instilled, will never, under ordinary circumstances, be departed from by choice: and it is a habit which may easily be attained by a child. By the practice of it, we secure for ourselves the most health-giving part of the day, under the most favourable auspices. At early day, even pestiferous atmospheres, out of doors, are comparatively healthy: and the body is at that time, more than any other, in an advantageous state to receive benefit from what is healthful. In short, no child is well educated who has not been taught to rise early.

We might say much about habits of cleanliness, which are most necessary to a good home education, and about the right training of the appetite, in regard to meats and drinks. But our proposed limits are already reached; and a few words must suffice. Train your children, then, to look upon cleanliness as a virtue, and dirtiness as a degrading vice;—to love the application and the effects of water upon their skin. If possible, every boy should be taught to swim, and encouraged frequently to bathe in the sea, in rivers, in lakes, in ponds—anywhere, so that he does not court danger, or offend public decency. And every girl should, as far as the case admits, be provided at home, with means for thorough and frequent ablution—not a mere washing of the face and hands, but the uniform and entire application of fair water to every part of the body. Children so trained will not unnecessarily wear dirty clothes.

As to food, it is essential for parents to know that the stomachs of their children are in general not capable of digesting the same food which they themselves enjoy; and that thence arise what are too often set down as absurd fancies, daintinesses, perversities, obstinacies, and so on. It is desirable, therefore, that parents should be cautious in this respect, so as not, on the one hand, to pamper their children with unnecessary and injurious delicacies, nor, on the other, to foster a dislike to what may hereafter be a useful article of diet, by compelling them to feed upon it now. As far as possible, children should be trained to look upon the indulgence of the appetite as a secondary consideration; and upon excess in eating and drinking as a shame and disgrace to a rational being. They should be taught to eat, because, and only because, they are hungry; and to drink because, and only because, they are thirsty. There will be, then, but little to fear from future habits of gluttony and drunkenness.

ROMANTIC GENEROSITY.

Some twenty-five or thirty years ago there resided in London an old sergeant of artillery. This person, in the course of his duties, by some means or other, had been brought into frequent contact with Sir Francis Burdett, who had conceived a high opinion of the sergeant, and with that homeliness and good nature which distinguished him throughout life, the hon. baronet had been accustomed to treat the worthy sergeant with great kindliness and familiarity. One morning Sir Francis chanced to meet his humble friend in the street, and observing him to be looking a little more anxious than usual, kindly said to him, 'Well, N—, what are you about! You are looking duller than usual, has anything happened?' 'Nothing very particular, your honour,' was the reply, 'only my wife has got a son this morning, and—and—Sir Francis, now that I think of it, and if you have no objections, I should like to name him after you.' 'Surely, surely,' said the amicable old gentleman; 'and remember, N—, when he grows up, to bring me in mind of this—perhaps I may be able to do something for the boy.'

The ceremony of baptism over, at which Sir Francis appeared as godfather, nothing more is said to have passed at the time. The hon. baronet, in the course of years, was gathered to his fathers, as was also the old sergeant. The boy meanwhile had been sent to sea, and by application and good conduct had been promoted to the situation of mate in a merchant vessel. A few weeks ago, while in Liverpool, the young man saw what he thought a good opportunity of purchasing half of a vessel on his own account ; but not being possessed of sufficient means he wrote to his friends in Edinburgh to inquire if they could assist in the purchase. The idea now occurred to one of the young man's brothers that he might take it upon him to make Sir Francis's heiress aware of the former promise of her father, and a letter was accordingly sent to Miss Burdett Coutts, detailing the circumstances, and enclosing the young man's certificates of character. The reply to this note was received in town last week, and was couched in that magnificent style for which the lady has become celebrated. It contained no vain words, but a bank check for no less a sum than £1,000. However extraordinary this story may appear; we have good authority for stating it as a literal fact.—*Edinburgh News.*

THE MOTH.

The moth is a pretty, yet formidable enemy in a house. In all woollen manufactures, blankets, flannels, moreen curtains, carpets, as well as in furs, and amidst feathers, it seeks to form its nest and to deposit its eggs ; whence in the spring of the year issue the larvæ which from such substances derive nourishment. In this stage of the insect's existence the ruin takes place of the fabrics upon which it feeds. This is visible in the innumerable small circular holes through which it has eaten, and which, destroying the strength and tenacity of the material render it worthless.

Many persons suppose that moths are produced in clothes that are laid by, merely by their being shut up in closed places ; but this is an error. None of the little larvæ or caterpillars of the moth, that really do the mischief, ever appear among clothes or articles of any kind, provided none of the winged moths can have access to them to lay their eggs there, for no insects can be engendered otherwise than by the usual method of propagation. The winged moth, that flies about in the dark, does not, cannot, eat or destroy cloth of any kind : but lays its eggs in woollen articles, upon which alone nature dictates to her that her young must feed. These eggs in time produce little caterpillars, and it is they that eat holes in and destroy clothes, &c. After a time these caterpillars assume the pupa state, out of which burst forth the winged insect, to proceed, as before described, in laying eggs. From this account it is easy to see that, provided you can prevent the winged moth from having access to what you wish to preserve, no injury by moths can happen to them. For instance, if you tie up any article that is quite free from moth in a bag of linen, cotton, or paper, no winged moth can enter the bag to lay its eggs, and therefore the bag will be a perfect security. But it is to be observed the winged animal is very cunning, or rather instinct impels it to search with great care for suitable places to lay its eggs ; and therefore, simply putting things into drawers, however tight, or covering them over with paper, will not be sufficient : if there are chinks by which the winged animal can insinuate itself, such places will not be safe from moths.

Nature has likewise given the instinct to moths, not to lay their eggs in places liable to be often disturbed : therefore, if you shake any articles very frequently, it is not likely that moths will deposit their eggs there ; and if not, there can be no caterpillars to do mischief. These facts being clearly understood, the means of guarding against these destructive insects will be comparatively easy. Should any articles of wool appear to be attacked by moth, beating and brushing should be resorted to, and, if possible, they should be put into hot water to destroy the young larvæ. It sometimes happens that on discovering the winged moth in some places, they are driven out to fly

about, when they resort to some other part of the house, where they will be more safe. This must, if possible, be prevented ; otherwise they will continue to propagate somewhere, and the breed will be kept up. Even if driven out of the house they have been known to enter again at the windows.—*Encyclopædia of Domestic Economy.*

HINTS ABOUT EYES.

THERE are some very prevalent habits by which the eyes are liable to be injured ; especially when they are predisposed to debility and inflammation ; and which are indulged in without the least idea that they constitute a cause of danger.

The first of these which I shall mention, is the practice of rubbing the eyes on awaking from sleep in the morning, in order to relieve the uneasy sensations experienced at that period of the day—the feeling of stiffness and weight that is so apt to be present in the much-used eye. It occasions irritation ; produces a determination of blood to the organs ; and not unfrequently slight degrees of redness, which, by frequent repetitions, may easily degenerate into troublesome disease. If much force is applied in this way, it may so derange the functions of the nerve as to occasion permanent and incurable blindness ; of which the following case, related by Beer, is a striking and melancholy example. Its relation may not be without its use, in impressing the importance of the above caution upon the mind. 'I was once called,' said he, 'to a man who had enjoyed a remarkable vision, and who, but a short time previous, had suddenly become 'stock blind.' He was in the company of some familiar friends, when a stranger suddenly came behind him, and covered both his eyes with the hands. Now he was to tell who was behind him. Whether he knew or not I cannot say ; but without speaking a word he endeavoured to free himself of the pressure. But the more he endeavoured, the more firmly did the other press with his hands ; until, when they were removed, he found, on opening his eyes, that the sight was for ever gone.'

Many cases are on record, and many annually come under the observation of physicians, which exhibit the injurious and fatal consequences of pressure upon the eyes. It is, therefore, very easy to conceive, that even a moderate degree of pressure, if frequently repeated, as in the above mentioned habit, may not only increase the tendency always existing in many eyes to irritation and inflammation, but may sometimes actually produce it, and lay the foundation of weakness that might otherwise have never occurred.

The eyes, especially when they are predisposed to weakness, are not unfrequently injured by exposure to strong currents of wind. Many date the first attack of what they consider serious disease, to this cause. All whose eyes are weak, are rendered uncomfortable by it. It should therefore be avoided, especially by those who are subject to ophthalmic diseases. When it cannot be wholly avoided, such individuals ought to adopt some measures to modify the impression of the wind upon the eyes. A neglect of this precaution has often converted simple weakness into acute inflammatory disease.

Another bad habit is the custom of reading while the body is in a recumbent position. It is a lazy posture, as inconsistent with the health of the eyes as with the graceful propriety of the scholar. The blood, while the body is thus conditioned, flows more readily to the head and eyes, and subjects them to increased danger, especially when the reading or study is combined with mental labour.

The eyes are often seriously injured by being put to too early or too great use after the system has been affected with grave and important disease : as acute inflammations of the vital organs, nervous fevers, or any disorder, accompanied with great depletion. Such affections often leave the eyes exceedingly debilitated.

The habit of exercising the eyes in the examination of very minute objects, is also very injurious to vision. Its debilitating and fatal consequences are not unfrequently seen in those mechanics who are continually obliged to strain the sight in this way, in the manufacture and ma-

nipulation of very small and very delicate objects. It is this that renders so many of them amaurotic in advanced age. The student who is ever reading small print is subjected to the same danger. Indeed his danger is greater, since there are few, perhaps none, of the objects about which the former is occupied, that strain the sight so much as the small type of the latter. For this reason, while we rejoice at the abundant facilities for acquiring knowledge, which constitute one of the peculiar features of the age, we cannot help regretting the multiplication of books printed with very small type, as among its dangerous errors. It has made our eyes ache and water, to see the spirit of a dozen reviews crowded into the narrow space formerly needed for one. Much as we should rejoice to know, that the poor student, for a small pittance of his earnings, can secure an amount of literature, once attainable only by the more favoured sons of fortune,—yet, when we consider the unspeakable value of sound, permanent eye-sight, we feel that the privilege may be purchased at too high a price. The constant habit of reading very small print, is dangerous to strong eyes. To weak eyes, it may be fatal. It should therefore be carefully avoided.

The use of green glasses, so common of late among those who have weak eyes, is another bad habit, wholly contrary to the nature of the organ, and to the true principles of treatment in such cases. Their very general adoption is probably founded on the fact, that nature has spread this colour so profusely through her works, and the very natural inference that the colour provided by her, and so eminently beneficial to healthy eyes, must of necessity be useful to those which are weak. It has been proved, however, by the experience of thousands, that this opinion is incorrect. Instead of diminishing weakness, in a vast proportion of cases, they increase it. They throw a sombre, melancholy, and disagreeable hue upon all objects, wholly unlike nature's soft and pure colour. The eye is strained by them. When they have been worn for a long time, its sensibility becomes morbidly elevated, and it is unfitted to bear the light, which is its natural, healthy stimulus, without uneasiness or pain.

They are only useful, when the individual is obliged to be exposed to a bright glare of light, for any length of time, which cannot be moderated in any other way ; as in travelling over snow when it is highly illuminated by the rays of the sun, or in sailing upon the water, where he is subject to the dazzling and dangerous reflections from its surface. The weak-sighted, therefore, should only have recourse to them on these and similar occasions, and beware of crippling his eyes by their continual employment.

Among habits which exert an unfavourable effect upon the eyes, the use of tobacco ought not to be passed over unnoticed. There can be no doubt that this powerful, poisonous narcotic, is highly detrimental to the health of sedentary, studious men. Of the numerous patients with diseased eyes annually presented to the notice of medical men, a great proportion indulge in the use of tobacco.

Before leaving this branch of our subject, let me warn my readers against another practice that has aided in the destruction of thousands of eyes. It is the ignorant and injudicious use of eye-waters. None know the amount of this evil except those physicians who have had extensive opportunities of observing the diseases of the eyes. It is so great, and its consequences are often so melancholy, that the very word eye-water occasions pain almost as often as it meets the ear of an intelligent oculist.

When from neglect of any or all the above directions, the eyes have become weak and irritable, crowded with blood, and requiring only a little more action to run on to serious disease, nine men out of ten, nay, nineteen in twenty, have an unhesitating recourse to some nostrum, which goes under the name of an eye-water. In other words, they use some stimulating application, whose only legitimate operation is to give additional irritation to parts already too much irritated.

The indiscriminate employment of these as a remedy, is, in nineteen cases out of twenty, unscientific and unphilosophical, and wholly at variance with the simple principles of disease. The experience of every sensible observer proves, that in an equal proportion of cases, they produce or keep up disease, instead of alleviating or curing it. Among the host of specific

eye-waters, in such general use, there is not one that has not done infinite harm. There is no specific for the diseases of the eyes ; I had almost said for any other disease.* The only rational mode of treatment in these, as in all other diseases, is that which looks to their causes, and removes them ; and afterwards applies such remedies as are in accordance with the philosophical principles which regulate the removal of disease in all other organs.

Among the various nostrums vended and used under the name of eye-waters, to the injury or destruction of much good vision, there is one, however, which forms an exception to the above reprobations, and which, should it supersede all others, and be introduced into the same general practice, would doubtless, till the people gain a better light, prove a blessing. This is the famous Paris collyrium. 'An old lady of Paris, whose husband had become famous for an eye-water, had the misfortune to lose her spouse and his secret together. In this dilemma, harassed by applications for the nostrum, she had recourse to the water of the river Seine, and was not more gratified than surprised, to find that the collyrium had lost nothing of its virtue. After having enriched herself by a successful traffic, it so chanced that she fell sick ; and conscience-stricken at the prospect of death, she applied to an eminent professor of surgery instead of a priest, to relieve herself of the burden of sin with which her soul was encumbered.' 'Make yourself easy my friend,' said the professor ; you are the most innocent of doctors : your remedies have done harm to nobody.'

From the above observations, the following important inference is drawn, viz. People whose eyes are effected, should never use a collyrium stronger than good river water, without the counsel of some skilful, well-informed physician.†

Whatever care has been taken of the eyes, however judiciously they may have been managed, they must, after a certain period, begin to be imperfect. As age advances, one of its inevitable consequences is a change in the conformation of the eye, which will, in some measure, impair vision.

Happily, art has provided an admirable remedy for this difficulty, in the invention of spectacles ; by which a person may continue his labours and prolong his usefulness.

Some incorrect opinions prevail respecting the period when recourse may be had to the aid of spectacles. Many, influenced by these opinions, have seriously injured vision by deferring them too long. Not a few have laid up cause for repentance by using them too soon. It is therefore important to lay down some directions, by which each one may determine with accuracy the rule of safety, and ascertain with correctness when his sight may be assisted by spectacles.

The proper period is various in different individuals. Some men require them in very early life. Others enjoy perfect vision without them even to old age. Therefore the question cannot be determined, as has been supposed, by the number of our years. Whether they are to be used earlier or later, depends upon a variety of circumstances, upon the original structure and conformation of the eye, upon the care with which it has been managed, upon its wise or unwise use in youth, and upon a great number of peculiarities and diseases, ever varying in a thousand different degrees, in different individuals.

But fortunately, whatever are the precise nature and variety of these, there are signs uniformly presented in every case, by which each person may determine accurately the precise time when the use of spectacles will be consistent with wisdom and the preservation of his sight. They are the following :—

1. The focus of vision is farther removed from the eye. In other words, in order to see small objects distinctly, they must be removed farther from the eye than the student has been accustomed to view them. The usual length of this focus of vision in a sound, healthy, perfect eye, is from sixteen to twenty inches.

2. More light is required than formerly for distinct vision. Hence the habit of old men, of holding the candle between the eyes and the paper when they are reading.

* Dr. Reynolds might have said so at once. —(Ed. F. E.)

† Many solutions, lotions, and liquid applications, *under the direction of an oculist surgeon or physician*, are, in some diseases of the eye, of great use and importance.

3. Very small objects, when they are closely examined, appear confused, and run into each other. This is especially the case when they are of bright, brilliant colours.

4. The eyes are very easily fatigued by slight efforts and straining, which would not have affected them previously. There is a sense of weariness on viewing near objects, with watering of the eyes, and headache, and sometimes redness of the eyelids—so much so, that there is a necessity of directing them frequently to other objects, in order that they may obtain repose.

5. The sight is generally weak on awaking from sleep, and does not fully recover its accustomed power until some hours after—until it has been, in some degree, aroused by the action of light and air.

6. There is always more difficulty in reading small print by candle-light than by the light of day.

Whenever any or all these signs are present, the assistance of spectacles is not only proper but necessary. The prevalent opinion, that the longer they are deferred, the longer the vision will retain the strength of youth, is a mistake. It is a mistake, which has often brought extreme old age prematurely on the eyes. As soon, therefore, as the eye has become sensibly flattened, and the above-mentioned inconveniences arise, not a moment should be lost.

But this is not the only mistake that is made. The eyes may be also seriously injured, and premature old age induced, if the glasses are not properly adapted to the actual condition of the eyes. If the glass is bad, in other words, if it be not accurately conformed to the actual condition of the eye, the vision will be in greater danger of being injured with it than without it.

Let the principle, then, be well understood. Many err by obtaining glass of too great magnifying power. But this is wrong. A proper glass is not one which magnifies the object, but which presents it as nearly as possible of its natural size —which shows it in a clear, distinct manner, and at the same distance at which the person was accustomed to distinguish objects when the eye was in its most perfect condition. The lens is always too convex, if, in order to procure distinct vision, the object must be brought nearer to the eye than before the sight became impaired.

If glasses of too great magnifying power are chosen at first, the eye will endeavour to accommodate itself to an improper focus, and become so much flattened that it will be difficult, sometimes impossible, as age advances, and the sight grows more imperfect, to find any spectacles which will benefit. On the contrary, if they are selected on a right principle, if the focal distance is sufficiently long, so as only to relieve the sight and render it natural, it sometimes happens that the individual is able in future life to diminish rather than increase the power of the glasses, and at last to give up the use of them altogether.

Short-sighted persons require also the assistance of glasses ; and by a judicious choice, these will, on several accounts, aid the preservation of the sight. They prevent the straining of the eyes, and save much unnecessary labour. They enable a person also to avoid the unfavourable position of the body and head, which the short-sighted man is obliged to assume ; and which renders him more liable than others to congestion of blood about the head and eyes. The following are the signs by which he may determine whether he needs the aid of glasses:—

1. There is inability of distinguishing small objects, as common print, at the distance of fifteen or twenty inches ; and larger objects, at two feet distance from the eye.

2. There is a disposition to keep the eye-lids half-closed while looking at distant objects.

3. The short-sighted man distinguishes near objects in twilight, better than other men. He can read the finest print, for instance, with facility, when the long-sighted man, whose eye is sound, is unable to distinguish the capital letters.

4. He feels a sense of weariness, straining, and distension of the eye, by a long examination of distant objects.

With the existence of these signs he should not delay the use of spectacles,—but, like the long-sighted person, he should be careful to make a judicious choice, and select such as are exactly suited to the actual condition of the eye. The glass should never be so strong as to diminish the size of objects, but merely to

represent them clearly, distinctly, and of their natural size. If they are not selected according to this principle, they will increase the short-sightedness, strain the organs, and augment instead of diminishing the weakness.

The long-sighted man, as already observed, will perform an essential service to the eyes, by accustoming them, as he advances in age, to the frequent examination of minute objects. The short-sighted man, for the same reason, should be accustomed to the examination of more distant objects. By these means, each will diminish the tendency to an increase of the changes, which are ever taking place, in the course of time.—*Dr. Reynolds, Boston, United States.*

THE OLD OAKEN BUCKET.

How dear to this heart are the scenes of my childhood!
When fond recollection presents them to view;
The orchard, the meadow, the deep-tangled wild wood,
And every loved spot which my infancy knew;
The wide-spreading pond, and the mill which stood by it,
The bridge, and the rock where the cataract fell;
The cot of my father, the dairy-house nigh it,
And e'en the rude bucket which hung in the well.
The old oaken bucket, the iron-bound bucket,
The moss-covered bucket which hung in the well.

That moss-covered vessel I hail as a treasure,
For often at noon, when returned from the field,
I found it the source of an exquisite pleasure,
The purest and sweetest that nature can yield.
How ardent I seized it with hands that were glowing,
And quick to the white-pebbled bottom it fell,
Then soon with the emblem of truth overflowing,
And dripping with coolness, it rose from the well!
The old oaken bucket, the iron-bound bucket,
The moss-covered bucket arose from the well.

How sweet from the green mossy brim to receive it,
As, poised on the curb, it inclined to my lips!
Not a full-blushing goblet could tempt me to leave it,
Though filled with the nectar that Jupiter sips.
And now, far removed from the loved situation,
The tear of regret will intrusively swell,
As fancy reverts to my father's plantation,
And sighs for the bucket which hangs in the well.
The old oaken bucket, the iron-bound bucket,
The moss-covered bucket which hangs in the well.

WOODWORTH.

ABOUT SWINE.

BY MARTIN DOYLE.

PIGS constitute an important live stock, not only to the farmer, but also to the cottager, if he be possessed of a field or garden. If he do not keep a cow, a pig is necessary to him, in order to create manure; and if he do keep one, the rearing and fattening of pigs will still be very beneficial to him.

The wild boar, from which all our European varieties have sprung, was formerly a native of this country, and preserved in the royal forests for the chase. Of our domesticated varieties, we are disposed to give the preference to the Berkshire breed, although the Hampshire, Suffolk, and some other improved kinds have also admirable qualities. The Berkshire combines all the properties desirable in the pig, whether it be required for pork, at an early age, or for bacon of light or heavy weight. This breed is easily kept in good condition, and has an early tendency to flesh: one of this sort is recorded to have measured, from the nose to the tail, 3 yards 8 inches, to have stood 4½ feet high, and to have weighed 1215 lbs. But size, even approximating to such an enormous standard, is not characteristic of the Berkshire kind, as of the Yorkshire and old Irish breed, so

well known in a portion of the county of Kilkenny—the barony of Iverk. The gigantic hams and flitches which were prized formerly, are no longer in such demand as those of a small or moderate size, such as the Berkshire supply, the average weight of those animals, at twelve months old, being about eight score pounds.

The true Berkshire pig is black, or black and white, short-legged, full and round in the loins, rather fine in the hair, the ears small and erect, and the snout not lengthy. This description of animal forms a striking contrast with the long-sided, convex-backed, lob-eared, long-legged, shambling brute which was common in many parts of Great Britain, and almost universal in Ireland thirty or forty years ago, and which still, without any improvement in form, is the only description of the pig throughout all Normandy, and, we believe, the greater part of France.

In giving preference, however, to the Berkshire breed, it is not to be understood that we consider them handsome in a *positive* sense, or perfect models of good breeding and propriety in their habits and manners. No dumpy animal, with its belly near the ground, with four short crutches for legs, hair by no means silky, a little curled tail, and small sunk eyes, peering into every hole and corner, and never looking upwards to the glorious firmament, can be called an absolute beauty; but *relatively* with other races of swine, the Berkshire are handsome. And as to their habits and manners, they have no little merit. For, considering the natural dispositions of the hog family, and the contemptuous manner in which they are spoken of, and treated every where, (except in certain parts of Ireland and the highlands of Scotland, where pigs are privileged orders, and experience such respect as to be permitted, and even invited to occupy the same room with their masters, by day and by night, in consideration of their paying the house-rent, and supplying the means of purchasing salt, candles, and soap,) the Berkshire race have unquestionable merit, and appear to respect the decencies of life. Their females have never been known to commit infanticide, as some other domesticated tribes of swine undoubtedly do, from what *we* consider a depraved taste, nor have either sex of this tribe been ever justly accused, or even suspected of that cannibal propensity which has led individuals of certain other tribes of the great hog family to seize upon the tender babe in the cradle, and devour it, 'marrow, bones, and all!' They (the Berkshire) are so docile and gentle, that a little boy or girl may drive them to and from the private field or the common, without having their authority disputed. And when ranging about in the happy consciousness of liberty, though they may sometimes poke their noses where their interference is not desired, they do not perpetrate half the mischief to the turf which other classes of swine are so prone to commit. They seem disposed to content themselves with the grass on the surface of the soil, without uprooting it in search of delicacies that may lie beneath, as do some of the long-snouted tribes which plough the earth up in furrows. They seem to make it a point of honour, too, to become fat as fast as possible, in return for the food they have received, in order that thus they may be in condition to pay 'the pound of flesh' which is 'in the bond' against them. They never fret at trifles, and thereby impede their digestion, and lose health and flesh. They never *sulk* and refuse their meals, nor complain of the quality nor of the scantiness of their food, like some of those ungrateful children, of certain parochial sties, who have fancied that they could have eaten a little more porridge, if it had been doled into the parish manger for them. We do not indeed say, that the Berkshire swine are singularly neat in their personal habits, nor ceremonious at their meals, nor free from the vice of gluttony, nor that they will not scramble and fight for the best bits, and exhibit other unseemly manifestations of self-indulgence, nor that they would be shocked at snoring aloud, even in the presence of royalty or nobility, if the inclination to fall asleep should seize them: but then it is to be remembered, that every individual of the hog species would do the same things. In short, their peculiarities decidedly tend to the *benefit* of mankind; and, after all, their failings, like many of our own, proceed entirely from the stomach. The capa-

cious paunch of the pig, and its great powers of digestion, are what render it so beneficial to us ; yet, though in a domesticated state, a pig will eat almost any sort of animal or vegetable food—raw or cooked, fresh or putrid—he is, when at large, as naturalists inform us, the most delicate and discriminating of all quadrupeds. If free to select his vegetable food, he will reject a greater number of plants than the cow, the sheep, the horse, the ass, or the goat will refuse ; so *nice* does he become, when luxuries surround him, that in the orchards of peach-trees, in North America, where the hog has delicious food, it is observed by Goldsmith, 'that it will reject the food that has lain but a few hours on the ground, and continue on the watch, whole hours together, for a fresh wind-fall.'

We only know the hog under an unnatural character, in which he has few opportunities of exhibiting his natural sagacity. We are acquainted with him as a gluttonous, drowsy fellow, who would as soon wallow in the dirtiest puddle as bathe in a limpid stream, and exhibits no great sensitiveness to passing occurrences, except when a storm is arising, then indeed it seeks its sty, if it should be out of it, in nervous agony. It appears very apprehensive of ferocious dogs, from woful experience of the sharpness of their teeth upon its ears, and evidently suffers terror when one of its companions cries either from fright or pain, as when undergoing the operation of being ringed ; and therefore it appears incredible (even with Buffon's high authority on this point) that 'mice have been known to burrow on the back of these animals while fattening in the sty, without their seeming to perceive it.' The pig is too sagacious to be imposed upon in such a manner ; an animal which is known (with careful education) to distinguish the letters of the alphabet better than some children can, and to back and stand game, cannot be so stupid as the pig is generally considered.

At the age of eight months the female should be allowed to receive the visit of the boar.

In selecting the female for permanently breeding, care should be taken not only that she be well proportioned and free from defects, but also that she have not fewer than ten dugs at the least, though on the first and second occasions of her having a litter, it is very improbable that she will have ten young ones. A litter of twelve, or even more, is not uncommon, but ten are a more desirable number. The supernumeraries are weakly, and only reared by care, and with injury to the strength of the mother, and to the vigour of the other individuals of the family.

The Creator has proved to us, by experience of his dealings, that animals domesticated by man for his use, are to be improved in their qualities, and, if designed for his sustenance, rendered more *prolific* by care and judicious management ; just as it is with respect to plants which are multiplied, varied, and brought to perfection by skilful culture. Wheat, in a state of nature, would soon degenerate in kind and in productiveness ; whereas, grains sown in a seedling bed, (we are taking an extreme case of economical and careful culture,) and duly parted and transplanted, would cover a large space of ground, and produce in the most abundant manner. In both cases (animal and vegetable) the Almighty supplies us, as it were, with the rough material, on which we are to exercise our ingenuity and industry : and with respect to pigs, it is a curious fact, that in a wild or natural state, the sow has but one litter in the year ; the domesticated she has two, and may have five in two years. One sow has been known to produce 355 young ones in twenty litters. Mr. White, the naturalist, mentions an instance of a half-bred Chinese sow which had been kept until she was seventeen years old, when she had produced about 300 pigs, having had two litters in the year for ten years, and frequently double as many pigs as teats. The supernumeraries were destroyed. In such a very prolific breed, twelve teats may be considered among the qualifications of a sow. This breed is excellent if small porkers only are required ; but it is too small for producing bacon, and altogether inferior to the Berkshire or Hampshire, and some other improved varieties. And a boar (exhibited at the Highland Society Show in 1838) was the legitimate father of 1466 pigs, when he was only twenty months old.

During the period of pregnancy, the

sow should be sufficiently fed, but not to excess. Experience has proved, that a sow, if fat during that time, is not prolific; but the opposite extreme—a favorite error with some ignorant people—that of stinting her in her food, so that she remains meagre, is also to be avoided: a feeble progeny must be the result, if the mother be weak and unable to impart due nourishment to them.

The proper seasons for producing litters are March and August: the sow goes four months with young. The weaning should take effect seven or eight weeks (if the litter is to be reared) after she has farrowed. If the object be to have sucking pigs for roasting, they should not be kept more than four or five weeks with the sow; and as she will admit the boar the ninth day after farrowing, three litters in the year may easily be obtained from her, when they are thus early taken from her. If the young pigs are to be reared, it is a great matter to have them born at the two seasons of the year which have been specified, in order that they may be weaned in temperate weather, and when there is an abundance of clover, vetches, mangel wurzel, lettuces, &c. At six weeks old, the young ones of both sexes, not designed for breeding, should be incapacitated from propagating their kind; and at eight weeks they should be weaned with skim-milk and butter-milk. Young pigs thrive better, for a short time after weaning, on sweet than on sour milk; but when they are pretty well grown, acidulated milk seems more beneficial and palatable to them than sweet milk: they devour grains, also, which have fermented, with more avidity than if fermentation had not taken effect. Coarse pollard, or the tailings of corn, or some bruised or ground beans, should be given to them after weaning, with boiled or steamed potatos, parsnips, or Swedish turnips, &c., with milk or kitchen wash. A great object ought to be, to feed pigs well from the commencement; the food then *tells* considerably: the cost and difficulty of bringing up lost condition and size is great; and no animal thrives and attains full vigour and growth, if not well nourished in its youth. Store pigs, five or six months old, of the Berkshire, Hampshire, and some other thrifty kinds more especially, are very beneficially kept in growing condition on raw vegetables during the summer and autumn, if on a dairy farm—milk, in some form, being highly conducive to their healthy growth. Any one who examines the clean, ruddy state of the skin of pigs fed on milk, will estimate the value of such diet.

There should be a separate yard and sty for the weanlings; and for swine, in all stages of growth and condition, a clean dry bed is indispensable. But if manure be (as it ought) a principal object to the cottager more especially, he will supply the green food to his store pigs with most benefit in their confined yard, in order that their manure shall be incorporated with it. Let him litter abundantly, and he may collect a surprising quantity of manure, even from a single pig.

The feeding troughs should be frequently washed; and if pigs are fed together, the troughs should be barred, so that each animal shall be limited to the space through which he introduces his head, otherwise the stronger will overpower, and perhaps drive away altogether from the food, the weaker of the party. The bars also prevent the ill-mannered brutes from putting their dirty feet into the mess, which otherwise they will generally do, thus rendering it disgusting even to themselves. The Berkshire pigs are fit to be killed at about five months old, for pork; at that age, they weigh from two-and-a-half to three score pounds, and are delicious for the table. If put up for the last two or three weeks, they usually get a little barley-meal or fine pollard, in addition to the ordinary food, and are not fed upon the watery diet that suits the nature of store pigs of the same age. Young pigs require a good deal of liberty, which unquestionably promotes their growth and healthiness; but unless in the farm-yard, about the barn door, pigs in actual process of fattening should be confined altogether, so that they may eat and sleep alternately, without any of those disturbing influences which would tend to interrupt digestion.

A Berkshire pig should be from eighteen months to two years old to attain full weight—say from twelve to fifteen score pounds. It should have, in such case, some barley-meal mixed with that of beans or peas, in order to render the flesh firm, although the potato-fed pigs of

Ireland are firm in flesh, and bear salting remarkably well. The parsnip, however, is a preferable vegetable for them ; and as it has been calculated, that the produce of two-and-a-half poles of good parsnips is sufficient to fatten an ordinary pig, without any other food, the cottager may perceive how much it is in his power to supply himself with a flitch of bacon at small cost. On a barley and peas dietary, it is estimated that a pig will increase from nine to ten pounds in weight, when in full fattening order, for every bushel of the mixed grain. Malted barley is peculiarly beneficial in fattening swine, and raw corn, peas, and beans, quickly harden the flesh of those designed for bacon of superior quality. It has been ascertained that milk-fed pork is not equal to that fed on barley-meal. It looks as well, and, if eaten fresh, is as well-tasted ; but it will not stand the test of curing, for in a few months it becomes rusted, whereas the other will keep good for a year. Again, the bacon of pigs fattened on beans and peas is much harder, and boils out, instead of plumping in the pot (to use a vernacular phrase) ; and such is the prejudice against the latter sort of bacon among hog-killers, that they will not buy it except at a lower price.

At the commencement of the fattening process, pigs consume much more food than subsequently, and when quite fat, very little comparatively. A pig, therefore, for mere profit and economy, should be thoroughly fattened. A frequent washing and brushing of the skin—though not usual—is to be strongly recommended, as tending to promote cleanliness and a healthy circulation. How, indeed, can a confined brute be in health, or in a state of bodily *comfort*, with a skin incrusted with scurf, and various defilements ?

The operation of *shampooing* must be very agreeable to an animal which naturally takes pleasure in scratching itself, though it may ungraciously grumble when first subjected to the brush. Pigs, when sick, are like many men, (we advisedly except women,) very intractable ; but fortunately, they will generally eat even when very sick, therefore medicine may be administered in their food. Salts, sulphur, and antimony are the usual specifics for their disorders, which (if they do not result from blows, wounds, or accidents) arise from starvation, or foul food and dirty damp beds. Measles are probably occasioned by an impure state of the blood, and strong beer (we have not yet tried Bass's pale ale with them,) with peas-meal, has been prescribed as tonics. If a pig refuses his food altogether, we know not what to do for his recovery. For imposthumes, after they have been opened and squeezed, a dressing of hog's-lard and salt is reckoned efficacious.

RECIPES.

An Omelet.—Five eggs, two ounces of onion, two ounces of bread-crumbs, and half a tea-spoonful of sage. Beat the eggs well, add the onion, cut very small, the bread-crumbs, and the sage ; mix all together, and season with pepper and salt, frying it in butter, on both sides, of a lightish brown colour, about the size of a plate, and one inch thick. Slice three or four onions, fry them, and lay them round the omelet, and serve with brown sauce poured over it.

Brown Sauce.—Two ounces of butter, and one ounce of flour : melt the butter in a frying-pan, and add the flour, stirring it, till it is of a brown colour ; and then, adding as much boiling water to it as will make it the thickness of good cream ; season with pepper and salt.

New Bread.—New bread is very unwholesome, as it undergoes a change like new beer. It gives off carbon, and imbibes oxygen, and should therefore be left to cool where the air is pure, and not in a cellar or cupboard. Stale bread is one-fifth more nutritious than new.

To preserve Eggs.—Put them for one minute in water just about to boil, and they will afterwards keep well for a month ; or if soaked a little while in sweet oil, they will keep for half a year.

To take Ink-stains out of Mahogany.—Touch the part with a feather dipped in a weak solution of vitriol, rub it quickly off, and if the stain be not removed, repeat the operation : or in recent ink-stains, put a little salt of lemons on the spot, and rub off with a cloth wetted in hot water.

Ink Powder.—Take five ounces of the cleanest nut-galls, bruise them, and sift the powder very fine; then add one ounce of white copperas, two ounces of Roman vitriol, gum arabic, half an ounce; pound and sift them very fine: an ounce of this powder will make a pint of very black ink.

Red Ink.—Boil one ounce of Brazil wood in half-a-pint of water for a quarter of an hour; add to the decoction three drachms of gum arabic, and an ounce of roch alum.

Japanese Cement, or Rice Glue.—This elegant cement is made by mixing rice-flour intimately with cold water, and then gently boiling it: it is beautifully white, and dries almost transparent.

Blood Cement, for repairing Copper Boilers, &c., is made by pounded quick-lime and ox-blood mixed together: it must be applied fresh made, as it soon becomes so hard as to be unfit for use.

To make Boots and Shoes Waterproof.—To half a pint of drying oil add one ounce of turpentine and half an ounce of Burgundy pitch; mix carefully together in a glazed pipkin, over a slow fire: lay the mixture over the boot or shoe with a sponge or soft brush, while yet warm, and when dry, repeat the process, until the leather will hold no more: the shoes must then be put away, and not worn till they are perfectly dry and elastic.

To wash Woollens.—Use soft water; and, in order to make a lather, put half-a-pound of soap into a gallon of water, (or as much more in proportion as is necessary,) and boil it until the soap is dissolved; wash through two waters, (unless one is found sufficient,) as warm as can be borne, adding, as you go on, what quantity of the soap-water is needed: wring them out each time; then throw them into a rinsing-tub, and fill, to covering, with boiling water. Let them remain until cool enough to admit of handling, then proceed to rinse well and wring them.

N. B.—Observe, the rinsing-water must be *hard water*—this is the secret. This method will do for any kinds of woollens; but for large and strong, such as blankets, or carpets, &c., perhaps wringing would be better omitted, and in all cases, care should be taken to spread out the articles straight and smooth.—*From a Shropshire Correspondent.*

Corns.—Wear shoes fitted to the foot, with thick soles; sufficiently large to be perfectly easy, without being so large as to prevent a firm step.—*Henderson.*

Shoes.—When about being measured for shoes, place the foot firmly on the ground, as the foot is larger in a standing, than in a sitting posture.

Clothing.—Light-coloured clothing is cool in summer, and warm in winter.—*Robertson.*

Colds.—A daily exposure to the outward air is absolutely necessary to secure us against the injurious influence of our variable climate. For cure of catarrh, reduce the amount of food, take exercise, keep the bowels open, and bathe the feet in warm water at bed-time.—*Henderson.*

Cramp.—Cramp is apt to attack the calves of the legs and toes soon after retiring to rest. Get out of bed, and exercise the muscles vigorously.—*Henderson.*

FAMILY SECRETS.

A GREAT CHANGE—AND HOW IT CAME ABOUT.

If, between the hours of eight and ten in the forenoon, you should chance to be walking in a wide and pleasant road which forms a main entrance to the metropolis, on the eastern side, you would be met or passed by hundreds of well-dressed men: some bustling along with the eager haste that bespeaks a consciousness of having started a few minutes too late; others with the dignified complacency of those who feel that they are in proper time; but all moving with the determined air of men who know where they are going, and what they are going about. They are no 'Bond Street loungers,' but men of business, proceeding to their daily avocations. The omnibuses that follow each other, in rapid succession, towards the city, offer no accommodation to the chance passenger. They are fully occupied—especially if the weather be doubtful—with well-to-do gentlemen, who appear to have either past the age of walking as a matter of choice, or risen above the need of walking as a matter of economy; and a cab or two may be seen, loaded with portmanteaus,

carpet-bags, and band-boxes, hurrying towards the railway station: and there are a few—sometimes more than a few—private carriages, of various descriptions, from the pony-chaise to the chariot.

Perhaps another vehicle may attract your attention, as, a few weeks ago, it did that of the writer. It is a neat, light cart, well built and newly-painted, drawn by a stout, serviceable horse—the whole affair such as is often driven about by a country tradesman, to attend markets or deliver orders. This concern belongs to a respectable costardmonger—and thereby hangs a tale.

The master of a shop in the road referred to was busily engaged at his desk, when he was addressed by the voice of a stranger—'A pottle of fine fresh strawberries, sir?' Raising his eyes, the object that presented itself was a remarkably good-looking man, of middle age, well shod, well clad throughout, and especially distinguished by that creditable badge of industry and thrift, sometimes scorned by silly pride—a clean linen apron. He stepped forward, presenting to notice several pottles, with the additional plea—'Only twopence-halfpenny a pottle, sir, and quite fresh gathered.' The tempting appearance of the fruit, and perhaps yet more, that of the vendor,—his brisk, business-like, yet not obtrusive manner,—induced the shop-keeper to become a purchaser. 'If the pottles are not wanted, sir, shall be much obliged to you to let us have them when we come round to-morrow: they will serve again.' 'By all means,' was the ready reply; 'you may take them now.' And the fruit was transferred to a dish. 'Any fresh vegetables, sir? New potatos?—peas?—French beans?—young carrots?' 'Not any to-day.' 'Perhaps you will allow me to call to-morrow?—we shall be round with fresh goods every day;—no trouble to call, sir, if you should not happen to want any;—I wish you good morning, sir, and thank you.'

'There is something superior in that man,' thought the shopkeeper; and followed him to the door. There a pleasant spectacle met his eye,—that of an industrious, thriving family. A boy of seven or eight years old received from his father the empty pottles, which he stowed neatly in the back of the afore-mentioned cart. An older boy, with a shallow basket, containing specimens of vegetables, was offering them from house to house. In front of the cart sat a comfortable, motherly-looking woman, with the reins in her hands, and a chubby babe in her lap, at the same time attending to the supply of customers who came to the cart to purchase, and superintending the progress of a deedy little maid, not more than six years old, who sat behind in the cart, shelling peas. The dress of every one was clean, tight, and whole; and as far as the feet were visible, it might be observed, that the shoes were not only sound, but clean and well polished. What a difference in the appearance of a person is made by their being tidy about the feet,—or the reverse! I don't know whether all young people who are very much concerned about personal appearance, understand that secret: but it is a certain fact, that all the ribbons, flowers, shirt-pins, silk handkerchiefs, &c. &c., that can be heaped upon the upper part of the person, do not make half so much impression upon sensible people as the clean, well-fitting shoe, and well-mended stocking of either man or woman, boy or girl. This was certainly one of the signs that told well for the costardmonger and his family.

Duly, with every morning, the family took their round; and as their commodities were good, and their dealings straight-forward and fair, they secured many regular customers: among others, the worthy shopkeeper, who, having made his daily purchase, generally gratified his benevolent heart with a look at the comfortable family. He one day observed to the man, 'That's a neat concern: pray to whom may it belong?' 'To myself, sir,' was the reply: 'I bought it, and paid for it.' 'I am very glad to hear it, my friend; and I most heartily wish that success may crown your diligence and enterprise.' 'Thank you, sir; with the blessing of God, I hope it will.' A policeman was passing by at the moment. As the cart drove off, he said to the shopkeeper, 'A great change in that man and his family, sir, in the course of a few years;—as great a change as ever I saw in my life.' 'Indeed; how so?' 'Why, sir, it is not many years ago since that man used to sleep in the station-house four nights out of the seven.' 'Is it possible?' 'It

is quite true, I assure you. An industrious, civil man as could be when sober; but, poor fellow, he was fond of drink: and 'when the liquor is in, the wit is out,' and there's an end both to industry and civility. Night after night was he at the public-house, spending all he earned; and when all was spent, he would quarrel with the company, or turn out and kick up a row in the street; and so, one way or other, he was continually getting himself into trouble. You may guess how it was with his family in those days;—half-starved and half-naked; and would have been altogether so, if it had not been for the mother,—a decent, industrious body, that——but what can a poor woman do, when her husband, instead of bringing home money to keep her and the children, works only half his time, and spends the rest in squandering his earnings?' 'She cannot do all she would, Mr. Policeman, but she can do a great deal, at the worst of times; and it is plain this good woman has done so,—I mean by retaining her own good habits of industry and self-respect, and training her children to tread in her steps. However much a woman may suffer from the misconduct of her husband, if she does but maintain her own good conduct and energy, she makes it all the easier for him to reform, and keeps the family in a state to be benefited by any change for the better in him. The case becomes hopeless only when the wife gives it up as such; and because she cannot do all she would, does nothing at all, or follows her husband into bad courses.' 'There is some truth in that, sir, I believe.' 'But about the change in this man and his family;—how was that?' 'Why, sir, "'tis a long lane that has no turning," and the turning point with him was, that he left off drink—left it off altogether,—I mean that sort of drink that used to beguile him before: and when that one great step was taken in the right way, all the rest followed. When he worked a whole week, he had a week's pay to take instead of half a one;—when he did not spend it on himself, he had it to feed and clothe his family;—when he left off going to the public-house, he could make himself happy by his own fire-side;—when he ceased to spend his sabbaths as a sot, he began to spend them as a Christian. It is a pleasure now to meet the whole family, as regular as the Sunday comes, going to or from their place of worship, and to hear them at home of an evening, reading or singing together, as happy as the day is long. Look at that man and his family now, and see how true the proverb is, that "it costs more to maintain one vice, than to feed two children." I believe he has six children; but since he left off vice, he has found out the way, with the help of his good wife, to feed and clothe them all; and not only to do that, from day to day, but has saved enough to set up for himself: and, take it all in all, a more thriving and respectable tradesman, in a little way, shall rarely be found.'

Now this seems a very simple story to tell; and yet it is a TRUE and striking example of the great change in outward circumstances that often attends the greater change in character, when men 'cease to do evil, and learn to do well.'

GARDENING AND RURAL AFFAIRS.

Importance of Order in the Garden.

The advantages of a well-settled plan of operations, or what may be termed a regular method of doing things, is nowhere more apparent than in the management of a garden; without it all is confusion and error,—crops misplaced or out of season; flowers few or entirely absent, weeds alone flourishing, and all of either pleasure or profit necessarily and totally lost; indeed it is impossible to cultivate, in the proper meaning of the word, any kind of vegetation, either in small or large proportions, without some definite and well-arranged mode of treatment, both as regards the seasons for particular operations and the manner of performance. Seeds may be sown, and vegetate with all desired vigour, yet the result will be void unless the necessary weeding, watering, and transplanting be attended to in due season; flowers may be grown or fruit produced, still without timely attention to the preservation of both, we lose the enjoyment of either.

To do what is required, in the proper way, and at the right time, is to preserve order; and to none is this more important than to those who have only their occasional leisure hours for gardening. In the absence of order, the work rapidly accumulates, and often the precious limited moments are lost in settling

what is to be done first, searching for the tools, or otherwise preparing to begin. How often we may hear the exclamation, 'I should not fear the rest, if the roughest of the work was done;' but where a settled plan of action is regularly observed, there is no rough work: a suitable job is always selected for the time at command, and finished without hurry before another is commenced; and as everything has a place, and can be found there, the work proceeds without interruption, yielding pleasure in its performance, and a gratifying result at the end. Order begets neatness, and those who have learned to esteem the one will never neglect the other: both are essential to the true enjoyment of a garden, for without a scrupulous regard to the finish only attainable by a visible neatness in every part, the richest collection will fail to please; while the humble cottage plot, with no other claim to notice than this one distinguishing trait, will afford the highest gratification to the discerning eye of a correct judgment. A man's garden may be looked upon as an index of his mind: sloth and ignorance go together. The intelligent, right-minded, and industrious man can no more endure an untidy, negligent appearance, than the idle one can arouse sufficient energy to clear away the rubbish which encumbers the ground, and renders his garden unprofitable.

Order is necessary, that everything may be done in due season; neatness, that all may be done well; and both, that we may enjoy the work which our hands have completed.

WHAT SHALL I DO WITH THE LEAVES?

What shall I do with my leaves? Are they good for anything? asks a correspondent. Do with them! good for anything! Why, treasure them to be sure, as if they were coin of the realm; they are good for everything which a gardener has to do. They are the best of all shelter, the best of all materials for bottom heat, the best of all soil, the best of all drainage, the best of all manure. It is true they contain little or no nitrogen, but they rot quickly, are full of saline matters, on which everything that bears the name of plant will feed gluttonously, and from their peculiar structure will allow air to pass in and water to pass out with perfect freedom.

If we wish to know what leaves are good for, we have only to burn them and see what a quantity of ash they leave behind. All that ash is as much food for plants as beef and mutton are for us. It is the material which nature is perpetually restoring to the soil in order to compensate for the waste which is produced by the formation of timber. In wild lands, trees are annually thus manured; were it otherwise, a wood would be a roof of life overshadowing a floor of death. If we can remove the leaves from our plantations, it is only because of the artificial richness of the soil in which they grow. This sufficiently indicates the value of leaves, which are in truth hardly less important in their death than they were in their life, though in a different way.—*Gardeners' Chronicle.*

THE EARTH CHESTNUT.

This root is the indigenous growth of our soil, but, like the potato plant, before its introduction into this country as an article of sustenance, it is now neglected, and nobody thinks it worth while to have a plant, even in his garden, although it is as plentiful in its native and wild state as the potato is in Peru, or in the first place of its discovery. Yet by cultivation, in two or three years it will, I have not the least doubt, produce as large a quantity per acre of a root three times more nutritious than the potato, and at less than one-fourth the expense. The plant is known to almost every school-boy; it grows in old pastures, and is called in some parts jar-nuts, earth-nuts, or earth-chestnuts. The plant is like a small kex, rather larger than a parsley plant, and something like that also; it bears a white flower, and is to be found in almost all old pastures in any part of England. I planted some roots of these nuts (but they may be produced from the seeds as well) in the year 1840, and they came up beautifully; and in the summer, when I dug them up, I found some of them two inches in diameter, and nearly as large as a man's fist. I roasted some of them, and found them delicious. They something resemble in taste the sweet potato of Virginia, or roasted chestnut of our own growth. They are a rich vegetable production, containing more of the elements of nutrition than the potato by three times at least, and will be relished as well by the community, as soon as they can be introduced. —*Correspondent of Gardeners' and Farmers' Journal.*

DIRECTIONS TO BEE-KEEPERS FOR SEPTEMBER.

Let the mouth of the hive now be closed, so as to allow but one bee to pass at a time, that robber bees and wasps may be prevented from readily attacking the inmates. If a hive be taken possession of by robbers, smoke it at once, take the honey, and join the bees to a strong stock. Our directions for October 1848, are suitable for the present month.

We trust, that now our monthly calendar is complete, we have given our apiarian friends, and bee correspondents, ample instructions for pursuing their interesting and profitable occupation, and conclude with two proverbs for our unbelieving readers.

EVERY BEE'S HONEY IS SWEET.

A DEAD BEE MAKETH NO HONEY."

Herbert's Proverbs.

VARIETIES.

Pauperism. — People do not sufficiently reflect on the magnitude of numbers, but it may bring the matter a little more clearly to their understanding, if they will consider that the habitual pauperism of England, to say nothing of Ireland, would fill several of our largest towns and cities: that, in fact, it would fill Manchester and Salford, Liverpool, Birmingham, Sheffield, Leeds, Edinburgh and Glasgow, or the entire of London and its suburbs.

Good Advice.—The following hint to young artists by Sir Walter Scott is invaluable—it is at once a guide, a warning, and a stimulative:—'I have rarely seen,' he writes, 'that a man who conscientiously devoted himself to the studies and duties of any profession, and did not omit to take fair and honourable opportunities of offering himself to notice when such presented themselves, has not at length got forward. The mischance of those who fall behind, though flung upon Fortune, more frequently arises from want of skill and perseverance. Life, my young friend, is like a game of cards—our hands are alternately good or bad, and the whole seems at first glance to depend on mere chance. But it is not so; for, in the long run, the skill of the player predominates over the casualties of the game. Then do not be discouraged by the prospect before you, but ply your studies hard, and qualify yourself to receive fortune when she comes in your way!'

Our own World.—Every man we meet carries about with him in the unperceived solitude of his bosom, a little world of his own; and we are just as blind, and as insensible, and as dull both of perception and of sympathy about his engrossing objects, as he is about ours: did we suffer this observation to have all its weight upon us, it might serve to make us more candid and more considerate of others.

British Commerce.—Our exports and imports are more than £130,000,000 worth annually, our own registered ships exceed 24,000, our colonies have 7,000. The tonnage of our imports and exports is 12,000,000. We have more than 900 steam-vessels, our speed of transit by land and water, has brought all places near, and makes time and life tenfold valuable.—*Ricardo.*

Kind Words.—The kind words of the long dead come back to make us miss them when times and things are changed; and simple phrases, heard long ago by hearths that are, it may be dark, and distant, often recal the past, with its lights and its shadows.

Hint for Debaters.—There was a rule in an old debating society which might be advantageously recommended to the House of Commons; that any gentleman wishing to speak the whole evening should have a room to himself.

Range of Vegetation.—The vine flourishes where the mean annual temperature ranges between 50° and 70°, and is only cultivated profitably within thirty degrees of the equator. To the same limit is confined the cultivation of maize and of olives. Cotton is grown profitably up to latitude 46° in the old world, but only up to 40° in the new. —*R. Hunt.*

Cultivated Lands. — In England and Wales are 29,000,000 of acres under cultivation :—17,000,000 pastures, 10,000,000 grain and vegetables, 2,000,000 fallow and hop-beds—an average of two acres to each individual.

Mental Power.—The activity and intensity of all mental power seem to depend on the removal of bodily impediment. — *Dr. Moore.*

Humanity to Animals.—The first idea of legislation for the brute creation was one of the grandest novelties that ever entered the mind of a statesman. After the ages that have passed away, it is a proud glory for England, that she has been the first country; and, as unfading a glory to Lord Erskine and Richard Martin, for having been the foremost of that country to lift a shield over all the living of God's creation, and thus to have stamped so noble a feature of civilization on the age in which we live. No statesmen ever more merited a statue to their memory. Their marbles should stand side by side in that glorious and venerable temple where sleep the ashes of the noblest of humanity—the greatest and wisest of our country. — *Mander May.*

Children.—The real object of education is to give children resources that will endure as long as life endures; habits that time will ameliorate, not destroy; occupations that will render sickness tolerable, solitude pleasant, age venerable, life more dignified and useful, and death less terrible.—*Rev. Sydney Smith.*

Doing and not Doing.—Mankind, in general, mistake difficulties for impossibilities. Therein lies the difference between those who effect and those who do not.

Cure for the Scour in Lambs.—Mr. R. Fisher, of Alcester Lodge, states, that he has found, by three years' experience, that the bathing of lambs is the most beneficial remedy for the scour. 'When the lambs are thus affected,' he says, 'I have them dipped for twelve mornings successively: a running stream is preferable to a pond. The lambs should be kept on old turf. My lambs have been affected from July to October. Sainfoin is the most beneficial food, when suffering from this complaint. I have my lambs dipped at eight o'clock in the morning, and no pains taken to dry them afterwards.'

THE RAT.

A BOOK of travels has lately been published, entitled *Four years in the Pacific:* among the places visited by the author was the island of Juan Fernandez, which most readers will remember as connected with the history of Robinson Crusoe, and upon this island, he tells us, he met with a family living on a small farm. The land is very fertile there, and produces crops and fruits with but little trouble to the owner, yet this family did not appear to be prosperous or comfortable, and paid but little attention to the farm. 'When I asked them,' says the traveller, 'why they did not cultivate the ground, they said the rats destroyed all their seed, and after some acquaintance with them, I came to the conclusion that the rat indeed was too strong for them, and that it was of the same breed that desolates many lands, and ruins many families,—IDLENESS.'

Now when I read this passage, I could not help being struck by it; and I said to myself,—'truly, this breed of rats which lives and does so much mischief in the little island of Juan Fernandez, hundreds of miles away in the Pacific ocean, is the same as that which so much infests other parts of the world.' Even in our own country, this highly-favoured land of England, as it is called, it is often met with; and then I remembered that I had often seen it in my walks and wanderings up and down in the land; and this set me thinking whether a few remarks about this rat might not prove of service to somebody.

Rats, as is well known, are very mischievous creatures; they appear to be sworn enemies to domestic economy, for no sooner do they hear of a store of eatables being laid up, against a scarcity, or for the winter, or even for the next two or three days, than they swarm to the place and eat and waste until all is demolished. At times they will actually devour linen and books, as though they disliked pleasures and comforts; and yet they do not always take up their quarters in the best houses, or where there is most to eat, as might be expected, for they are very often found in poor cottages, places in which they never know where the next meal is to come from; and, strange to say, it is harder work to drive them out of these miserable quarters than from anywhere else. You may always know the houses where these rats are lodgers; there is a close, unpleasant smell clinging about them; if the window has a blind, it is a dirty one, hanging with a slovenly droop across the window, the floor looks as though it had not been swept or washed for months, and if you peep into a closet or cupboard, you will see such dirt and disorder, as will make you glad to shut the door and run away. Three or four grimy children are playing, or fighting, or squalling at the door like young savages, while their mother stands scratching her head and gossipping with a neighbour a few doors off. You may be sure the rat is in the house; for who but he would have gnawed those big holes in the clothes and shoes of the whole family?

In towns, this rat sneaks into courts and alleys, and other out-of-the-way places, but rather likes being as near to a tavern as possible. Yet he shows himself sometimes in houses in the best streets, and as sure as he comes he brings misfortune, and ten to one but that the tenant becomes a bankrupt, and rat has the place all to himself for a time. But although these rats find their way into all sorts of places, I never heard of one being seen in a savings' bank—perhaps they look upon the bank as a trap—as something connected with the workshop.

Cats are well enough in their way, but they are no match for this rat; and as for traps, you need not think to see him taking the trouble to poke his nose into a trap. If the store-rooms happen to be empty, 'Well,' says he, 'I can wait till something turns up, I dare say they will soon be filled again.' Meantime he can wait, and if the bread is all gone he can eat potatos, or even potato-peelings on a pinch, and, if it comes to the worst, he can beg, or go into the union. He is not afraid of the union although he is afraid of the trap; he has a mortal dread of the workshop.

It is not altogether easy to say, why this rat should be so afraid of trap? perhaps he fancies that, if he were taken, some use would be made of him. In China the people eat rats, and although roasted rat would not be much relished in England, still we might make some use of the skins, and the carcases would always fatten the dunghill. However, this keeping out of, what he believes to be harm's way, is not prudence, it is laziness or fear; cowards very often pretend to be virtuous.

It does not appear from the book of travels, which I mentioned at starting, that there are any ferrets in the island of Juan Fernandez; it might be well, if some benevolent captain would carry out a few when next he sails into those regions. But, luckily, there are ferrets in this country, and brave little fellows they are, they don't care a pinch of snuff for the biggest rat that ever wore whiskers, and the great lazy rat that I have been writing about, no sooner gets sight or scent of master ferret, than he runs away screeching, if he has time, or he faints, or pretends to be ill, and now and then, not very often, he makes a show of fighting it out, but he soon gives in, and offers, with tears in his eyes, to go to jail, or to work for his living.

There is one ferret better than all the others: he is one of the most enterprising, nimble, sharp-eyed, little creatures you ever saw, and he is game to the back bone, he never gives in, you can always know him by his name, his name is INDUSTRY, and I will back him any day against that big lazy vermin, IDLENESS.

THE SELF-ADVANCEMENT OF EDWARD BLAKE.

BY MARTIN DOYLE—PART ONE.

THE father of Edward Blake lived as land bailiff with Sir William B., who possessed estates both in Berkshire and the west of Ireland, and resided occasionally in the latter country. This gentleman having noticed in Ned steadiness of conduct, intelligence and a strong passion for farming, supposed that by placing him under the training of his bailiff in England, he might render him an agent for promoting the agricultural improvement of his Irish property, and sent him therefore to the cottage of his bailiff in Berkshire.

Ned was delighted at seeing the perfect regularity and neatness with which all the operations of husbandry were performed in England, and with a degree of enthusiasm rare in young men of his station, he devoted himself to the business of the farm, in a manner which surprised the bailiff and the labourers. During five years Ned remained in his probationary situation, giving great satisfaction to his employer, who now thought it full time to transfer him to the estate in Ireland. But a very unexpected event interfered with this design, although Sir William was not deprived of the advantage of having Ned settled in the centre of his Connaught property.

The young man had saved £25. during his five years service, and had every prospect of accumulating more wages, when an incident occurred which rendered him independent of any. His mother's brother died, bequeathing to him a cabin and twenty statute acres of freehold property.

Ned being a very well-looking young fellow, was of course a favourite with the girls, and among many who spirted upon him, Mary Juggy, the dairy maid, had most favour in his eyes. It happened that when the letter from his mother arrived announcing his good fortune, he was in the dairy admiring Mary's method of squeezing the butter which she had just taken from the churn. His face flushed, his eyes dilated, and with great energy he exclaimed aloud, 'Bedad this is great news entirely; I never expected such luck.' Mary looked up anxiously from the roll of butter, 'Expected what Mr. Blake?' 'To be an estated man said he! 'A what?' He explained. 'Lauk a-daisy, ejaculated Mary. 'Well to be sure: my gracious!' Ned seeing her cheeks alternately red as a carrot, and white as a turnip, was fairly *bothered;* and fancying that the poor girl was going to faint, he snatched up a gallon of butter-milk, with the intention of throwing it in her face, when luckily the application became unnecessary by her recovering from her agitation. After a sob or two caused by excitement, she gasped forth, 'And are you a squire like squire Hogg? Maybe you'll be a justice too,' and she sighed, and then remarked with great feeling, 'I suppose you never won't speak no more to a dairy girl; you'll marry some gentleman's daughter.' 'I'll marry *you* and nobody else, Mary Juggy,' responded Ned, 'if you'll say, yes, and come over with me to Connaught.' And he slapped the palm of her hand in the true bargaining style of his country; to which she replied by a squeeze of his—to which of course, succeeded the natural rejoinder of a loving kiss. It was a happy moment for this simple-minded English girl, when Ned thus proved the sincerity of his attachment to her. The sum of £15. which she had earned, was immediately pressed upon his acceptance, and in this she only followed the generous impulse by which Englishwomen of higher birth and greater fortunes have been sometimes led to surrender themselves to Irish husbands. She asked Ned in her pure English, 'Will the people respect me, when we settle among them?' To this very proper question, he replied, 'Won't they my darlin'. Let them alone for that.' This was enough — every thing was settled, the banns were published on the ensuing Sunday, and on the Monday at a quarter past eight o'clock in the morning, after the third time of asking, Ned Blake and Mary Juggy were pronounced to be man and wife. Sir William B. was not displeased at the turn which affairs had taken, and the young couple were soon afterwards in occupation of the little Irish farm.

The deceased owner of it, though a very bad farmer, had not actually exhausted the land, but he left very little live stock on it,—two old cows and a lean calf—an old mare, a lame horse and a filly, all ragged and somewhat mangy—one or two pigs, and a few cocks and hens—two geese with broken wings (from the rude gripe of the feather-plucker) and a very disconsolate looking gander—for which acquisitions Ned was bound by his uncle's will to pay at least double the value to the old man's housekeeper. The house was in a very dilapidated state, and the miserable furniture had been left to the said housekeeper. An extract from a letter which Mary Blake wrote to her mother in Berkshire, will perhaps afford the best evidence of the condition of the tenement to which the bride had transferred herself from a neat cottage in her native county. 'The dwelling-house must be repaired from top to toe,—the cow cattle want changing for they're a bad lot, and the plough-team is no better. And as to the pigs we're blessed with there never were worse—no more like our Berks pigs, dear mother, than I am to be compared in my present respectable situation with my former servitude. Ned's old uncle, and more shame for him (but we forgive him) charged us in his will a preposterous price for them all, which was a great wrong to us, with the estate so out of order. Ned says that it's best to sell part of the property that we may manage the rest rightly. It's a sore blow to part with old hereditary property, but it can't be helped, for how else can we get capital for all demands and furnish the house, which hasn't as much as a boiler or oven, and what's a house without them? All the commonality here boil their potatos alive with their skins on, which makes them drier than ours, and they have no other victuals, which is very disrespectable. The women spin their own flax and wool, and Ned says he'll sow some

flax for me, which nobody does in Berks. My mother-in-law and all the family of Blakes are very respectful to me, and I keep up my spirits, dear mother, and why not?' &c.

The soil of Ned's farm consisted of a deep calcareous loam, resting on limestone gravel. None of the fields were worn out, although foul with weeds, from the practice which had prevailed of taking two —sometimes three—successive crops of corn after potatos. Now the treatment which Ned had witnessed in Berkshire, as regarded the rotations of white and green crops, was quite different ; there he found the following courses as the general rule of culture for eight years.

1. Half fallow-turnips with manure.
2. Barley or oats.
3. Beans or turnips. } One or other of
4. Wheat. } these crops manured.

Sometimes winter tares or stubble, turnips follow the wheat fed off by sheep folded on them : then

5. Turnips.
6. Barley or oats.
7. Clover.
8. Wheat.

Sometimes barley or oats (the latter very rarely) follows wheat, and clover is sown if the preceding wheat had followed beans, so that clover shall only be taken once in eight years. If clover do not succeed the barley, the usual crop of turnips or beans follows. When the two corn crops are taken successively (and this is the *exception* to the rule) a hoed manured crop succeeds, so that the land shall be in a clean and fertile condition to receive the clover seed with barley. The Irish system was to sow clover if at all with the second or third crop of corn, so that every plant which took root had a continued struggle for possession of the soil with the indigenous weeds and grasses.

Ned's uncle having been rich enough to purchase lime, used to apply a dose of it to what was termed the clover ley (the most of the plants being couch, charlock, sorrel, &c., interspersed among a small sprinkling of the clover tribe) in order to stimulate the soil, but he had not acquired the art of collecting farm-yard manure in a sufficient quantity, and like his neighbours kept his miserable cattle, whenever leisure and the state of the weather permitted, straggling about the fields, and when confined under a roof, badly fed, badly littered, and badly housed. No wonder that the bulk of the dunghill was of very limited dimensions.

The money which the young couple had brought with them from England, had only been sufficient to pay off the charges upon the farm. Ned was, therefore, very much in the position of many greater landowners on succeeding to the possession of estates, that is to say, without a guinea to start with. He therefore determined to sell four acres of his little farm in order to raise capital for the cultivation of the remainder, without any incumbrance of debt. He found a purchaser, and received £100. for the portion he sold. Some of his neighbours looked very wise when they found that Ned had sold part of his inheritance, and calculated on buying the remainder at no very distant day. The £100. enabled him to repair his house thoroughly, and to add sheds for cows and sheep, for he was well aware, that without animal manure the returns from the soil would be comparatively trifling, and moreover that without it, he could not pursue the English system at all.

Deducting the portion sold, about three acres and a-half of permanent grass land, at the lower extremity of the little farm, and the part occupied by the house, the offices and cabbage garden, there remained twelve acres for regular cultivation, if all the petty fences within the area of the farm were removed. The furze bank boundary fence was a sufficient protection from trespassing cattle outside.

Ned was confident that such a naturally fertile soil ought to yield much more than it had hitherto yielded, and that it was in his own power to increase the produce.

It was early in the spring when he and his wife arrived there. The first work he undertook, with the help of a cottier family was to level all the internal fences, excepting one which divided the grass land (of which I shall have something important to mention) from the remaining portion, and to sow clover with barley on the field which had been previously under potatos, and of course in a clean and productive state. He astonished the entire parish by his mode of sowing the barley. His wife and he, with the cot-

tier's wife and daughter, dibbled it as he had seen done in a few instances in Berkshire (on land in good condition) in rows eight inches apart, with six inches between the dibbles. They dibbled an acre and a-half in three days, and used less than two bushels to the acre, which was a saving of at least half the seed usually sown, a saving which amply paid for the labour. The clover plants had space to grow between the rows of corn, and were in no danger of being smothered by a thick matted mass of falling straw, too weak to bear the heads of corn when rain and wind beat upon them. He sowed tares where his uncle would have forced a corn crop, and having been accustomed to live in England principally upon a bread diet, neither he nor his wife had occasion for more potatos than a rood of land could yield, for their own use and the keeping of a pig or two, and some poultry. The garden could produce cabbages, parsnips, carrots, onions, peas and beans, to assist in their dietary. No great quantity of manure, therefore, was required for those productions, and he was enabled to apply the remainder to turnips, through which means Ned well knew that he could best fertilize his land. There was a small supply of hay, with a very little stack of oats, for the poor animals that were to perform the spring labours of ploughing, harrowing and carting. When these operations were over, their owner made them up as well as he could for sale and disposed of them, ploughs and tackling included, while there was yet spring work to be executed by some of the more tardy of the neighbouring cultivators, some of whom perhaps had lost a horse or two from starvation and overtoil in that busy part of the year. This last act of Ned Blake was considered supreme folly. 'What! sell the horse and the mare, and the filly—and the plough above all—couldn't he let them run on the pasture field along with the cows all the summer and autumn, as they did in the old man's time? What great loss would the bit of grass they'd pick up be to him? And what a shame to let the dacent and genteel Englishwoman, that brought a fortune to him, walk to church on Sundays, instead of riding behind him on a pillion or sitting at her ease on a spoke-wheel car, and how the mischief could he go respectably to a neighbour's berrin without a baste to carry him? Oh, Ned Blake, if you had heard the tenth part of what your friends said of you! But Ned knew what he was about, and even if he had heard what was remarked would have cared little about the matter.

THE PEACE MOVEMENT.

Above all, there is one achievement before us, without which every other must be insecure and of questionable value. It remains for the most powerful, the bravest, and the freest people of the globe, to proclaim and establish the virtue and beauty, the holiness and necessity of universal peace; and that they will proclaim it in due time we entertain no doubt. It has already occurred to the thinking masses of this great country, notwithstanding the humanizing creed which we profess, the civilization that we boast, and the increased intelligence of all classes of the population, that the ferocity of warfare is as brutal to-day as in the remotest times of savage ignorance; that the Christian and the heathen are, to all intents and purposes, one and the same, when they meet as destroyers on the battle-field; and that what we call the glorious victories of British Arms, are scarcely to be distinguished from the butcheries of barbarous ages that we pity, and of more barbarous fighting men whom we think proper to condemn. And it must be so. You cannot redeem, under any circumstances, the naked and horrid aspect of war, the offspring of brutality and civilization's adopted child. War in itself is a mighty evil—an incongruity in a scheme of social harmony—a canker at the heart of improvement—a living lie in a Christian land—a curse at all times. We confess that we regard with infinite satisfaction every endeavour, come whence it may, to destroy the supremacy of a cruel deity acknowledged on every ground. Kings who preach to their subjects the advantages and sacred character of peace, are more than kings. Men who unite to promulgate the same doctrine, feeble instruments though they be, and liable to ridicule, claim respect for their mission.—*The Times.*

A CHAPTER ON CHOLERA.

Among the numerous works which have of late been published on the subject of cholera, we know of none more suitable for general readers than a little book entitled, ' Cholera Preventible,' &c., which has been advertised on the wrapper of the *Family Economist*. The subject is there treated in a way easy to be understood by nearly all persons ; and although we are as far as ever from knowing what cholera really is or how to cure it, there are, nevertheless, certain precautionary measures which may be adopted, and which, if experience be a proof, will either prevent or greatly mitigate an attack of the disease.

The book to which we now call attention begins at the beginning of the subject —means of prevention, under the heads of Ventilation,—Removal of Impurities —Cleanliness of Habitation—of Person and Apparel—Clothing. It then enters instructively on the subject of Diet—Daily Habits of Life—and concludes with useful hints and reflections.

Having thus indicated the general plan of the work, we shall transfer to our columns such passages as our space permits, and which are suited to the occasion. The author states what cannot be too widely known, that ' Dirt and filth of every kind, dirty skin, dirty clothes, dirty houses, dirty habits, invite disease. So do all bad smells, whether they arise from decaying substances, animal or vegetable ; from keeping animals shut up in or near the dwellings of man—from excrements—human or otherwise—from drains, sewers, and cesspools that do not properly run off —from some particular kinds of trade and manufacture—from marshy lands—and from stagnant water, whether in ponds, gutters, tubs, or puddles. Habits of intemperance, too, render persons more susceptible to the attacks of disease, and less able to struggle with them. Some kinds of food are more apt than others to pre-dispose persons to receive infection ; and insufficiency of food, and excess of any kind expose also to danger. These are all acknowledged truths. Nobody sets about seriously to dispute them. But too many persons practically disregard them as much as if they could utterly disprove them.'

We have already explained in former pages of our work, that ventilation means admitting a proper supply of fresh air into every part of a dwelling. Next to this is the clearing away of noxious matters.

' Sanitary inspectors of towns may do something towards removing what is offensive around dwellings—but they cannot do all that is required—much still depends on the inhabitants themselves—within doors altogether so—and also in country places, where, with every advantage at command, there is sometimes seen great indifference. Farm-houses might be pointed out in the most healthy situations, and where the inhabitants are sufficiently attentive to cleanliness within doors, but where the air is poisoned by the fumes from a pigstye or a house for fattening cattle, a privy, a hog-tub, or a stagnant pond close under the windows of the dwelling-house. A stranger is instantly struck with the offensive smell, but the inhabitants seem altogether insensible of it. At such a time as this, all persons are especially called upon to look round their dwelling and consider whether there is not something unfriendly to health that might and ought to be removed without delay. Constant attention is requisite that nothing offensive be suffered to remain within doors. Chamber-lye, liquor in which vegetables have been boiled, soap-suds, dirty water of every kind should be immediately thrown away ; also cabbage-stalks, potato-peelings, and offal of every kind. The liquor in which greens have been boiled, if suffered to remain even a few minutes, or thrown down a scullery drain, emits a most unpleasant and unwholesome smell, which pervades the whole house. Many very cleanly people are not attentive to this particular. If hog-wash is kept, it should be removed daily or oftener, and the vessel thoroughly cleansed. Among other things that require attention, falling leaves should be frequently swept up and properly disposed of.

' Indoors every room should be swept and dusted daily, care being taken not merely to make a decent surface, but thoroughly to cleanse under beds, drawers, tables, and other furniture ; and to clean out all closets and lumber holes. In sum-

mer, floors should be scoured at least once a week. This should be done early in the morning, that they may be quickly and thoroughly dried. In damp weather, dry cleaning is better than frequent wetting. Floors and walls are to be washed with lime. Lime is a very wholesome and purifying thing—and happily very cheap. It requires but little time or skill to whitewash a house, and takes but a short time to dry. It is a wise plan of some landlords, especially in the manufacturing districts, to require that every dwelling shall be whitewashed twice a-year, and to furnish their tenants (who are their own workpeople) with materials for doing it, allowing them time for the operation. In some parts of the country it is a regular thing for domestic servants to do this in the houses of their employers, and little more is thought of whitewashing a ceiling than of scouring a floor. Persons who have not been accustomed to perform this business, but wish to begin, may be glad of the following recipe :—

'Put half-a-peck of lime into a tub ; pour in water by little and little, and stir it with a stick that is broad at one end. When the lime and water are well mixed, and of the thickness of mud, strain through a sieve into another vessel, when the thickness will settle at the bottom. Skim off the water that remains at top ; and when about to use the wash, mix it with cold water, to the consistence of thin paste. Lay it on with a flat brush. The walls will be quite dry within two hours. N.B.—Every closet and pantry should be treated thus, as well as every room.

'A clean house should have clean tenants. Daily, or even more frequent washing of the face and hands is very far from reaching the proper standard of personal cleanliness, and yet it is quite as much as many people deem necessary. Every part of the body should be daily exposed to the purifying action of water. It is well that this matter is more generally understood than it was formerly, and that baths, stationary or moveable, begin to be regarded as a necessary household appendage to a comfortable residence, while the public baths and wash-houses supply the accommodation at an easy cost to all classes. It cannot be too strongly impressed on working-people, whether their calling be active or sedentary, that they should avail themselves of the convenience thus placed within their reach.

'Whatever mode is adopted of bathing or washing the body, a little soap should be used. It is a false, but common notion, that soap is injurious to the skin. On the contrary, by removing the dust and perspiration which continually accumulate upon the surface of the body, it sets the skin at liberty to answer the purposes for which it was evidently intended. One important branch of personal cleanliness consists in proper attention to the mouth and teeth, which should be rinsed and brushed, not only on first rising in the morning, but after every meal throughout the day. The hair should be frequently combed and brushed, not only with a view to cleanliness, but also to secure the passing of fresh air throughout.

'As to the apparel, all linen and cotton garments should be frequently washed and thoroughly aired ; woollen garments brushed, shaken, and exposed to the air. These remarks apply equally to bed-clothing. Infants and children should be trained to habits of cleanliness, and never suffered to retain soiled linen about their persons. Foul linen should not be suffered to accumulate. After being laid aside as dirty, the sooner it can be washed the better. If kept at all, it should not be suffered to remain in a sleeping or dwelling-room. Towels after using should be spread out to dry, not suffered to lie together, or they soon emit a musty, sour, and most pernicious smell.

'Clothing.—To fit the body to resist infection, much may be done by suitable clothing. It is important that the feet and body be kept comfortably warm by day and by night. The head can scarcely be too cool. For this reason keep the hair thin and short, wear a thin nightcap, or none. Wear woollen-stockings, and stout shoes, a flannel or woollen belt, or waistcoat reaching over the chest and down to the loins, and sufficient outer garments, according to the season and weather. In a time of prevalent sickness, more than ordinary attention is required to these particulars. Those who have but a scanty wardrobe should conscientiously refrain from spending money on mere finery, and bestow all they can spare on warm, durable clothing.

'Diet.—This is a most important mat-

ter. Imprudence in this respect, has, in many instances, been closely and evidently connected with alarming, and often fatal attacks of epidemic disease. It cannot be too strongly impressed on the minds of all classes of people, that intemperance and excess of every kind fearfully predispose to the reception of disease ; and that excess is not confined to those gross acts which absolutely unfit a person for business, but consists also in habitually taking *a little more to eat or drink* than is really necessary to keep up health, strength, and cheerfulness ; and in occasionally taking more than usual, when any thing more nice than common is set before them ; or when they have an opportunity of feasting free of expense. What we receive must be digested in a few hours, or it will be sure to make us ill. If, by eating or drinking more than usual yesterday, a person is not hungry to-day, it is not because he is satisfied, but because he is diseased. Nature requires but little, all that is taken beyond the simple requirements of nature, neither satisfies nor supports. It only goes to form an accumulating fund for disease.'

It has been clearly proved in numerous instances, in different parts of the country, that over-feeding renders people liable to an attack of cholera. Many who probably would have escaped become victims from this cause.

'The best code of diet, under circumstances of exposure to disease, is that most conducive to general health ; and, supposing the habitual practice to be good, the less deviation from it the better. Apprehended danger should rouse people to consider their general habits, and rectify what is imprudent ; it should excite more than ordinary caution in the use of things that are questionable ; but it need not induce a change where all was right before. The following hints are worthy of notice, both in general and special application. The diet should be rather solid than liquid. Large quantities of warm liquid at all times tend to weaken the powers of digestion, to spoil the appetite for wholesome food, to make the person feeble and nervous, and so to lay him open to cholera, or any other disease that happens to be lurking in the air. Workingmen and their wives will do well to remember this, and take more bread and butter, (or other solid food) and less tea and coffee. This hint applies to temperate people ; as to those who use themselves to put a little spirits into their tea to 'keep it from raking,' it can only be said, that they indulge in a most injurious habit, one for which there is no real excuse. We may suspect that people who take spirits in this way, do so, not as medicine, but from love of the liquor.

'A due mixture of animal and vegetable food is better than either exclusively. Of meats,—mutton and beef are preferable to veal, lamb, and pork. If the latter meats are used at all, special care should be taken that they should be thoroughly done. Meat that is at all tainted should be especially avoided at all times. Fresh meat is more digestible and nutritious than when salted. Fish is less digestible and less nutritious than butcher's meat and poultry, and if it be not perfectly fresh, is one of the things most apt to occasion bowel complaints. A medical gentleman who has long been conversant with Spitalfields, Bethnal-green and that neighbourhood generally, says, that when called to persons suddenly seized with alarming bowel complaints, he almost always finds on inquiry, that they have eaten inferior fish or stale vegetables. Persons who can buy but a small quantity of meat, should make the best of it in cooking. Meat goes much further if stewed than baked or fried. Twopence spent on rice or meat gives more nourishment than threepence spent on cheese or butter. Onions, carrots, and parsnips, if well boiled, are wholesome and nourishing, especially if stewed with meat. Potatos should not be boiled with meat or soup, they make the liquor unwholesome. All unripe or stale fruits and stale vegetables are pernicious ; often rendered still more so by keeping them in water to make them appear fresh. This remark applies particularly to greens, lettuce, radishes, and cucumbers. Greens, if fresh gathered and *quickly* and *thoroughly* boiled, are not unsuitable to persons in health, but those who are delicate had better avoid them ; also all raw vegetables, radishes, cucumbers, celery, and such like. Plain roast or boiled meat is better than made dishes ; simple food is always preferable to luxuries. This hint is to those who can afford to have what they please.

Bread is an article of the first importance, nothing is more apt to produce bowel complaints than bread made of damaged wheat, or that, from whatever cause, has a sourish taste. Bread eaten the same day that it is baked, occasions oppression, flatulence, and other evils of indigestion. So does rancid butter, and pastry that is either rich or heavy. Good fresh milk is wholesome and nutritious, and suits most constitutions, but if at all stale it becomes very pernicious. Stale beer or cider, and home-made wines, especially currant wine, are amongst the most likely things to produce bowel complaints.

Among things employed to season food, there is no special objection against pepper (Cayenne especially,) mustard, vinegar, or spice. As to salt, its value and importance are not half appreciated by persons in general. Children should be accustomed to it with the first food they eat, and allowed to use it freely as they come to help themselves. Those who do so are rarely troubled with worms or bowel complaints, that is, supposing them to feed properly in other respects. N.B.—This remark applies to the use of dry salt eaten with bread, meat, or other food, not to salted provisions, nor to salt melted in the process of cookery. The free use of dry salt has been mentioned by some medical men as having a direct tendency to resist the influence of cholera. Certain it is, that one of the earliest effects of cholera is to deprive the blood of its saline properties. Therefore it would seem reasonable, that by infusing a rather more than ordinary portion of salt, the power of resistance would be strengthened. At all events no harm can result from an increased use of dry salt. The quantity recommended is one-third of an ounce daily, to be divided as convenient with any sort of dry food.

'Food should be taken at regular hours. It is bad to go long fasting, and bad to take bites between meals. Those who go out to work before their regular breakfast should take a mouthful of bread or other solid food before going into the air, after this, their meals at regular hours. Three meals each five hours apart is in general the best rule. But those who have to work both early and late, may require a fourth, which should be of a light kind, and eaten, not immediately before going to bed.

The quantity of liquid of any kind taken in a day should not exceed a quart. If rather less, all the better. Pure water is by far the best drink with dinner or supper, but see that it is pure and fresh drawn. If kept within doors it soon becomes stale and unwholesome. When overheated it is unsafe to take a large draught of any kind, especially of cold liquid. Many lives have been sacrificed to the eager swallowing of a glass of cider or of cold water under such circumstances. The thirst may be quenched by taking a small quantity of tea; or by a piece of dry crust of bread or hard biscuit, held in the mouth a considerable time; or by holding a little water in the mouth without swallowing it. The refreshment succeeding such a course, though not so instantaneous, will be real, abiding, and safe.'

In the information and advice here given, there is something applicable to all classes; those of small means may do their best towards practising the rules laid down, and those in better circumstances may do much to help them by timely aid and example. There is one point in particular which every one may act on—while cholera is prevalent, if you feel any looseness, or disturbance of the bowels, apply at once to a doctor; an hour's delay is very often fatal. When an attack does come on, the following directions will be useful; but we repeat LOSE NO TIME IN SENDING FOR THE DOCTOR.

'1. With dry hot flannels or cloths, rub wherever pain is felt, and over the stomach and bowels whether in pain or not.

2. Lay over the bowels, flannels wrung out of hot water: cover with a thick dry blanket.

3. Fill stone bottles, or tin cases made to shut close, with boiling water: wrap them in flannel or cloth, and apply to the hands and feet.

4. Boil large double bricks, wrap in flannel, and apply as hot as possible: they retain the heat a long time.

5. General warmth may be successfully promoted, by covering the sick person with a thick layer of sand, heated in a baker's oven; or, by placing him in a tin bath, or long tub, (such as is often used for cooling beer,) and covering him with hot brewer's grains, or bran that has been steeped in hot water and drained.

A little good beef or mutton-broth quite free from fat, may be given from time to time ; or nicely made arrow-root. But whatever is done or attempted, must never be admitted as a reason for delay in calling in the best medical help within reach. Every moment is precious. If nothing else is at hand, get a good fire, and set on water to heat ; or merely rub with dry hot cloths, or with the bare warm hand.'

We have said nothing about medicinal remedies, thinking it best that these should be given under medical advice. It is much to be regretted that tedious formalities in this country prevent the prompt application of relief in this way. In New York, in similar circumstances, medical men are appointed to be in attendance at certain druggist's shops in different parts of the city, to prescribe and *give* medicine to all who apply for it. In the third week in August, the deaths from cholera in London were 1230, and the Registrar-General in his weekly report complained that the measures were not equal to the emergency. 'The classes,' he says, 'which have the greatest claim for public succour are not idle habitual paupers, but the hard-working artisan ; yet in some parishes the arrangements are such that medical relief is not procurable directly from the district medical officers, who, to the utmost extent of their powers, discharge their painful duties with praiseworthy diligence and humanity. In a disease which so often attacks in the night, and is fatal in twenty-four hours, the poor have to procure orders before they can be treated.'

We may in conclusion refer readers to an article on cholera in our first volume —and recommend all parties to keep their minds calm, and free from alarm, and to cultivate as much as possible a cheerful disposition.

MY BIRD.

LINES WRITTEN ON THE BIRTH OF A DAUGHTER.—BY MRS. JUDSON.

Ere last year's moon had left the sky,
A birdling sought my Indian nest,
And folded, oh, so lovingly !
Her tiny wings upon my breast.

From morn till evening's purple tinge,
In winsome helplessness she lies :
Two rose leaves with a silken fringe,
Shut softly on her starry eyes.

There's not in Ind a lovelier bird :
Broad earth owns not a happier nest :
O God, thou hast a fountain stirred,
Whose waters never more shall rest !

This beautiful mysterious thing,
This seeming visitant from heaven,
This bird with an immortal wing,
To me—to me—thy hand has given.

The pulse first caught its tiny stroke,
The blood its crimson hue from mine :
This life, which I have dared invoke,
Henceforth is parallel with thine.

A silent awe is in my room—
I tremble with delicious fear :
The future with its light and gloom,
Time and eternity are here.'

Doubts—hopes—in eager tumult rise ;
Hear, O my God, one earnest prayer :
Room for my bird in Paradise,
And give her angel plumage there !

COTTAGE COOKERY.

BY ESTHER COPLEY—TENTH ARTICLE.

SALTING OR CURING MEAT.

General Remarks. — Temperate weather is always preferable for salting meat. The extremes of heat and cold should be avoided. In very hot weather there is danger of the meat having acquired a taint before the salt can be applied to it, in which case it never properly imbibes the salt. This remark particularly applies to those parts of meat which contain glands or kernels. Neither does meat that is

frozen yield to the operation of salt, and though, while the frost lasts, the meat will keep a considerable time uninjured, no sooner does a thaw commence than it becomes irrecoverably tainted.

The best season to salt meat, for long keeping, is from October to April. If the air be clear and fresh, *without frost*, the meat may hang a day, or at most two days, before salting; but if the weather is frosty, the meat should be cut up, and the salt applied before the animal heat has left it. The same should be observed if it is required to salt a joint of meat for present use in summer.

It is a good way to apply the salt hot. This may easily be managed by putting it in a side oven, or in front of the fire in a Dutch or American oven, or at top in a clean frying-pan.

If different ingredients are to be used, they should be thoroughly mixed with the common salt before heating.

Sugar keeps meat as effectually as salt does, and does not dry the juices or harden the texture. In salting meat for present use, a mixture of sugar with the salt is a great improvement. It should always be used in curing meat for long keeping (as bacon, hams, &c.)

Saltpetre more than any other salt hardens meat, and if much is used, effects such a change upon it as nearly deprives it of its nutritive properties. Its only use is to give the meat a red colour; for this purpose a small quantity is sufficient, much less than is commonly applied.

Salting should be carried on in a moderately cool place through which a current of air may pass, but from which the rays of the sun are excluded, and which will admit of being shut in a severe frost.

The vessels suitable for meat-curing are:

1. Of wood well pitched within. A large oblong square tray fixed on legs, or otherwise raised to a convenient height, is used for bacon salting. It should very slightly incline at one end, and a hole be made in the corner to let off the brine when required. This hole must be fitted with a cork or plug.

These things are often lined with lead, but the pitch is preferable, as lead in any form is more or less liable to be acted upon by salt, and may prove in some degree injurious. The pitch will require to be occasionally renewed, perhaps annually at the commencement of the salting season. Still it is far less expensive than lead, as well as more safe.

2. Deep pans, expressly called salting-pans, and, according to the form, distinguished as 'a ham-pan,' 'a tongue-pan,' &c. These are glazed inside and out in a particular manner, by which they are rendered impervious to salt. Welsh-ware and Nottingham stone-ware answer equally well, but the common red pans and platters, though often used for the purpose, are altogether unsuitable. The salt acts upon the glazing, and causes it to peel off, by which the pan is spoiled, and the meat rendered gritty and disagreeable, if not injurious. Pans for salting are generally fitted with a wooden lid. The chief use of this is to protect the meat from flies, which, however, may be as well done by tying over the pan a thin strainer cloth, and in one respect this is better, as it does not exclude the air; but those who are annoyed by mice and rats find it necessary to cover their meat with a wooden lid, and even to press down the lid with heavy weights.

As soon as meat for salting is brought in, it should be carefully cleared of all slime and blood, veins, pipes, and kernels. A young cook or housekeeper who has not been used to such matters, should ask the butcher whether there is a kernel in the piece of meat she is about to salt, and request him to remove it in her presence. Thus she will learn where to look for it another time, and how to remove it without mangling the meat. The hole made by removing a kernel should be filled with salt. Any part of meat that hangs as a flap should be lifted up, wiped underneath with a dry cloth, and filled with salt, so also any holes that may have been made with a skewer or hook. If the weather be at all warm, these parts should be searched with special care, lest any fly-blows be deposited there.

Meat that is to be used in a few days, may have the same salt throughout; but that which is intended for long keeping (as bacon, hams, &c.) should be lightly sprinkled with salt, and so left one day or two to draw out the blood. The brine thus drawn is to be taken away, and the meat thoroughly wiped, and put into a dry vessel for its final salting. This first brine, if suffered to remain, causes the

bacon to turn rusty. It was formerly deemed necessary to rub in the salt, but it is now proved by science, and corroborated by experience, that this only hardens the meat, and that it is better simply to spread the surface of the meat with salt, and to turn it frequently—at least every day. A piece of beef may be turned upside down, and whatever portion of the salt remains unmelted, laid as a coat on the top; but meat that is covered with rind (as bacon and pork) must be merely raised for the brine to flow under it, and the dry salt again collected, and laid on the top. If flitches or legs of pork are placed one above another, their position should be daily changed—the top one being put at bottom—but always with the rind downwards.

Brine may be used for several joints in succession; but when it is intended to put a fresh piece of meat in old brine, it should first be covered with fresh salt, and a day or two allowed for that to penetrate the meat. Moreover, when there is much brine in the pan, the meat will not require so long salting as when only fresh salt is used. This should be borne in mind, or the meat will become too salt, and the liquor in which it is boiled be rendered useless, or nearly so. Some people, instead of applying dry salt to their meat, boil the salt in water, and keep the meat completely immersed in pickle. This mode of salting has two recommendations:—The meat does not lose so much weight; and if it suits to keep it in the pickle several weeks, it does not become over-salted, as it would in the ordinary way. It is generally practised by the keepers of cooks'-shops and eating-houses, but is not found to answer so well in small families, who, when they boil a piece of salt meat, may have it in cut several days. The recipe for this pickle will be given below. As to the time required for salting meat, there are few pieces that are not sufficiently done in a week. A large leg of pork, or round or thick flank of beef, may be allowed ten days, but this time should not be exceeded; and for the thinner parts, a thin flank or brisket of beef, or a spring* of pork, four or five days will be sufficient.

* Called in some parts of the country, 'a draught of pork,' in others, 'a breast and hand.'

If meat has been left too long in salt, it should be well washed before boiling; but even in this there is waste of goodness which had better be avoided by so contriving as that the meat shall not be over-salt at first. In general it is a safe rule to give it a day too little rather than a day too much.

This remark does not apply to meats intended for drying. They should remain in the brine long enough for every part to be thoroughly penetrated, otherwise, after a time, they taint at the bone. Five weeks is a good time to allow for bacon—from a month to six weeks for hams, according to their size; a neat's tongue, ten days; a calf's tongue, a week; a chine, according to size, from ten days to three weeks; pigs'-cheeks or chaps, a fortnight.

Salting Recipes.—For a moderate sized piece of meat, one pound of salt is sufficient, or three-quarters of a pound common salt, and two ounces each of bay salt and coarse sugar, all rolled and dried. If a red colour is desired, add a half-ounce of saltpetre, and a half-ounce more of coarse sugar.

Hasty Salting.—By the following method, a large thick piece of meat may be sufficiently salted in twenty-four hours or less:—Nearly fill a tub with fresh rain or river water. Lay across it two laths or thin sticks, on which place the meat, at about an inch distance from the water. Heap on the meat as much salt as will lie without scattering: so let it remain at least one whole night—next day it will be quite fit for boiling.

Pickle for Meat.—(as referred to above.)—To four gallons of water allow six pounds of salt, one pound of coarse sugar, and three ounces of saltpetre—boil them together—carefully skim as long as any scum rises—leave it to become quite cold before putting to the meat. When two or three joints have been salted in succession, the pickle must be boiled up again, and carefully skimmed, one-third of the above ingredients having been added to renew its strength. Whenever this is done, the salting vessel should be well scalded, and thoroughly dried.

For Bacon.—The quantity of salt required for one hog is from five pounds to eight pounds, according to the size. Some people use only common salt, but a mixture

of coarse sugar or treacle with the salt is always to be preferred. The following are good proportions: — One-third common salt, one-third bay salt, one-third coarse sugar or treacle, and to every pound a half-ounce of saltpetre. If two or more flitches are to be cured, this mixture of salt should be divided into so many portions, and spread over the inner side of each flitch as it is laid above another. The quantity specified is sufficient to do the hocks, chines, and cheeks, which can be placed at the end of the flitches, and so changed about that all may duly partake of the brine.

Some people use only bay salt. This is the Somersetshire method, and very excellent bacon is thus cured. First sprinkle the meat—after a day or two, wipe it dry. Let the tray or trough in which the curing goes on be also perfectly clean and dry. Take a fourth part of the whole quantity of bay salt allowed, and rub it well in. Repeat this the three successive days, each time changing the order of the flitches. The whole will then have been applied. After this, the flitches are to remain in the brine full three weeks, being transposed every other day. To be dried without smoke.

The Yorkshire Method. — Mix and pound well together one peck of common salt, five pounds of bay-salt, and two ounces each of saltpetre and sal prunel. The meat having been sprinkled, drained and wiped from the blood, spread over it the whole of this mixture. Let it lie three days; then pour off all the pickle, or let it run off, if in a regular bacon trough, as described above. The pickle is then to be boiled in two gallons of water, with the addition of as much common salt as will make it bear an egg. While boiling, skim it carefully, and when quite cold, pour over the meat, and let it there remain a fortnight. Dry without smoke.

For Curing Hams.—(The following quantity is sufficient for about eighty pounds of meat):—Common salt, bay salt, one and a-half pounds each; coarse sugar, two pounds; saltpetre, and black pepper, quarter of a-pound each; juniper berries, two ounces. All these ingredients are to be bruised or ground, well mixed together, and made thoroughly hot. The hams having been previously sprinkled, drained and wiped, are to be spread over with this mixture, and then entirely covered with a coat of common salt. In two or three days, pour over a pound and a-half of treacle, and baste with the pickle every day for a month, each day putting the top ham to the bottom. N.B.—A month is sufficient for hams of twenty or twenty-four pounds. If above that weight, five weeks may be allowed. When sufficiently pickled, drain dry, and smoke them. The pickle that remains will do well for tongues, chaps or chines, after they have been covered for a day or two with common salt.

Pickle for Hams.—Spring water, half a gallon; common salt, two pounds; bay salt, one pound; saltpetre, quarter of a-pound; treacle, two pounds. Boil all together, and when cold, pour over the hams. To give a smoky flavour without drying, boil twopence-worth of tar in one pint of water, stirring it frequently. When cold, pour off the clear liquor, and stir it to the brine. The above quantity is sufficient for two hams not exceeding twenty-five pounds each. They should lie in the pickle from three to four weeks; then drain dry; sew in coarse hessian wrappers, and hang in a dry kitchen, or lay on a bacon rack.

Pickle for Store Meat.—The Kentish method. From pork that is to be thus preserved, nearly all the lean is removed for dressing fresh, and the fat parts cut up into pieces of a convenient size (say from two to five pounds.) The salting-tub, which is fitted with a lid, must be scoured, scalded and made perfectly dry both when it is done with for one season, and before it is taken into use for another. Slightly sprinkle the bottom of the tub with salt, and cover it with a layer of meat, which is to be packed and pressed as closely as possible; a sprinkling of salt being added between the layers of meat. When the tub is quite full, pour over the pickle (No. 3) and keep the lid closely shut; the meat will be fit for use in two or three weeks, but will keep uninjured for many months. If, however, the pickle should become at all slimy, it must be boiled up again with additional salt, and carefully skimmed. Meanwhile the meat should be taken out and the tub scalded and dried.

Drying or Smoking of Bacon, Hams, &c.—In whatever way this is to be performed, the first thing is to drain well

from the pickle ; this will take a day or two. It is best done in dry weather, and in a room through which there is a strong current of air. Bacon is often strewed over with bran, but this is objectionable, as it fosters weevil or hopper, an insect most injurious and destructive to salted meats. For the same reason, drying meat in a bakehouse is not recommended. It is sure to be infested with hoppers. Drying in the influence of a malt-house kiln, or hop-haust, generally occasions rust. Persons who have a large kitchen, which is both dry and airy, and in which a good fire is constantly kept, may dry their bacon and hams, hanging from the ceiling or lying on a rack. After draining, they should be sewed in hessian wrappers, or packed in coarse brown paper previously dried ; or they may be whitewashed three times, a day or two apart. But by far the best plan, especially for long keeping, is to dry slowly over the smoke of wood. The large old fashioned chimnies in farm-houses are generally fitted up with hooks and bars for the purpose—but wood fires are much less common than formerly. It is not uncommon in the country for coopers, who have plenty of chips and sawdust of the best kind, to take in hams and bacon to dry. The charge is trifling and the advantage great ; as meat when properly smoke-dried, is almost sure to keep well, and neither takes rust nor hoppers. The meat must be hung high enough in the chimney to secure it from being melted or scorched, and so placed as that rain cannot reach it. When a wood fire has been thoroughly lit, it may be kept burning a long time with nothing but sawdust, which burns slowly and makes a great smoke ; the fire should be kept burning night and day. The sawdust of oak, beech, or mahogany, is better than that of deal. The time required for drying varies with circumstances. It should be long enough thoroughly and slowly to dry the meat, but not long enough for the rind to harden and separate.

The flavour of wood smoke may be given when other modes of drying are employed, by mingling in the pickle a few drops of oil of tar, or a little tar water as in No. 8.

Hung Beef, or Dutch Beef.—The meat for this purpose should be prime and juicy but lean ; the round, or thick flank of beef. In cold weather, it may hang three or four days before curing. Then rub it well in every part with one pound of coarse moist sugar. Repeat this three or four times a-day for several days. When the sugar has thoroughly penetrated the meat, take out the meat and wipe it dry ; pour off the pickle steadily, leaving behind any sediment ; well scald and dry the salting vessel. Return the meat, and cover it over with the following mixture, all the ingredients being finely pounded, dried, and made hot :—Common salt and baysalt, of each a quarter of a-pound ; sal prunel and saltpetre, of each two ounces ; black pepper and allspice of each one ounce. Next day, turn the meat, gather up the remaining salt, cover with it the part now uppermost, and gently pour in (not over the meat) the remains of the sugar pickle. Turn at least every day for a fortnight. Then take out the meat, roll and bind it tight with tape, or sew it tight in a wrapper, and smoke it as above. When a piece is required for use, boil it gently from an hour to two hours according to the size. Press it with a weight till quite cold, when it is to be shaved, grated, or pulled in strings for sandwiches.

Savoury Sausages for Eating Cold.—For this purpose the same ingredients are proper as in the last article. The meat may be prepared in the pickle after they are taken out ; or, if sausages only be required mix a sufficient quantity for the purpose in the same proportions of sugar, salt and spice ; with this mixture, salt a piece of lean beef and a piece of streaky pork for five or six days. Then remove it from the pickle and chop it fine, carefully removing all skin and gristle. If the pork fat is less than one-third of the whole, add as much beef suet as will make it up ; season with cayenne pepper and shallot or garlic. Have ready the skin of an ox gut nicely cleaned, into which put the meat tying it in lengths of nine or ten inches ; dry in wood-smoke. Then the sausages may be either baked or boiled ; and when cold, cut in slices for sandwiches.

RECIPES,

AND ANSWERS TO INQUIRERS.

A Housekeeper, Sheffield.—It may be very much questioned if, by any means, the vinous flavour of an old wine cask can be so far got rid of as that it will not be in some degree perceptible in the water afterwards kept in it. The old adage here literally applies, 'The first seasoning sticks long by the vessel.' The following method may be tried :—First, place on the bung hole a large piece of crumb of bread, and let it remain five or six days. Then apply a match, prepared as follows : melt some brimstone, and dip into it a piece of coarse linen cloth, or very coarse wide flaxen tape. Six or seven inches' length should be covered with brimstone to drop into the cask—two or three inches more should be left by which to lay hold and to fit in with the bung. When quite cold, set fire to the brimstone end, drop it in, and fix in the bung quickly and firmly. It must remain closely shut five or six hours. After this, suspend the cask with the bung-hole downwards over a boiling copper of clean water. It will soon be so thoroughly steamed as to be wet through the wood ; and possibly this process may effect the desired cure. Or the head may be taken out, and the inside of the cask be several times lime-washed. After all, wooden vessels are not suitable for keeping drinking water in. However clean a pail may be, if water drawn in it from the pump or well be allowed to stand only a few minutes, it will acquire a disagreeable woody flavour. A stone or earthen vessel is far preferable for the purpose. If we might presume to advise the housekeeper otherwise than in direct reply to her question, we should say,—Have your cask sawed in two ; it will make two handy little tubs for washing, or many other domestic purposes, or sell it to a cooper, and buy a stone or earthen pan with part of the money.

A Regular Subscriber in Birmingham.—For the best method of washing knitted woollens, see *Family Economist*, vol. i. p. 91, where the whole process is fully detailed. The colour may be improved by slightly blueing the last water. If the Birmingham Subscriber has only begun taking in the magazine this year, she will not have reason to grudge a shilling in order to put herself in possession of the first volume. The one article she requires would be found worth all the money.

Betty Higgins.—Small Cakes —Recipe from *Family Economist*, vol. i. p. 207.—To prevent their running together —First, in the composition keep out all superfluous moisture, by thoroughly drying the flour and sugar. This should be done before weighing, or a little additional weight allowed, especially in the flour, as some weight will certainly be lost in the drying ; moreover, as there is a considerable difference in the size of eggs, if the eggs are very large, a *little* more flour and sugar may be allowed. Second, let the cakes be got into the oven without a moment's delay after mixing. Third, if neither of these succeed, try a few grains less of ammonia, say one and a-half drachm five scruples, instead of two drachms.

German Yeast.—There is good reason to believe that the genuine article *is* really imported from Holland, and that it is used by the most celebrated makers of rusks, and tops and bottoms in London. It has repeatedly happened, when intercourse between the two countries was interrupted, whether by war or weather, that the customers at the great rusk-shops could not obtain a supply, or at best a very limited one ; country orders were deferred a few days, and town purchasers, who came for five or ten shillings' worth, were put off with one or two, and a promise that the order should be made up 'as soon as the yeast arrived from Holland.' It seems to be but little known to English people in general, although it is to be bought at many shops in London. Yet it would certainly be a great acquisition, especially in preparing bread for the use of sick persons and infants, as no method in common use has succeeded in producing an article so light, and so free from a flatulent quality, as the tops-and-bottoms purchased at Lemann's. The following is perhaps as successful an imitation as anything that has been attempted ; it is at least worth a trial, and may lead to the suggestion of improvements. Of the

best pale malt, ground rather more finely than for ordinary brewing, yet by no means ground to powder, one gallon; fresh rain water, three gallons. Bring the water to such a degree of heat as that the finger may be quickly drawn through it without scalding—and before the steam rises, so as to prevent the reflection of objects in the water—in a word, 'when you can see your face in the water,' the heat generally agreed upon by domestic brewers as proper for 'mashing.' Then gently pour the water over the ground malt, briskly stirring it the whole time. Cover the tub or pan with a sack or two, or something equally thick, to keep in the steam. Let the mixture steep for three hours, in the course of that time thoroughly stirring it eight or ten times, and covering up again. At the expiration of the three hours, strain the liquor through a coarse hair-sieve or clothes-basket. Boil the liquor three hours, in which time it will have diminished more than one-third, and become thick and glutinous. When very nearly cold—say of the temperature of water that has stood some hours in a warm room—add half-a-pint of fresh solid yeast, stirring it well in. Cover up the vessel, and let it stand in a warm place—not in the influence of the sun, nor very near a fire, but in a room that is kept shut, and free from draughts of air. If there be a fire in the room, all the better, provided it is at some distance from the liquor. In a short time, fermentation will commence, and the liquor will gradually rise almost to the top of the vessel (for which reason, be it observed, the vessel employed should be capable of containing twice the quantity of the liquor before working.) For two or three days it will continue to increase, and then begin to subside; and the frothy head will gradually sink to the bottom as yeast. When all has sunk, the liquor is to be steadily poured off, and the yeast to be bottled. For this purpose rather wide-mouthed bottles are the best, such as those used for bottling gooseberries, and for pickles, but they must be furnished with well-fitting corks or bungs. If the solid yeast can be got into the bottles perfectly free from the liquor, it is all the better; but if it be too stiff to manage, a little of the liquor must be stirred to the yeast. After this, the bottles must stand until the yeast has again entirely descended. This will take twelve hours or more. When perfectly separated, pour off all the liquor. Cork tightly, and keep in a very cold damp cellar.

SHEPHERDS AND HUT-KEEPERS IN AUSTRALIA.

THERE is no end to the demand for this class to meet the natural increase of the flocks. The wages of the former are from £25. to £30. a-year, with rations; and the latter, chiefly composed of old men or boys, are paid from £18. to £20., also with rations. To deserving men who take an interest in their flocks, various inducements are held out; extra allowances given, and many a wife is paid as well as fed for being her husband's hut-keeper, or cooking his meals and attending to household affairs. These occupations are extremely easy, and any man who will keep his wits about him, and his eyes open, is thoroughly competent to take charge of a flock of sheep. In the bush, the shepherd class consists of the most heterogeneous materials. Within ten miles of the place where I lived, I remember, as shepherds, one apothecary, one lawyer's clerk, one counting-house clerk, three sailors, one tailor, one Jew, one Portuguese sailor, one native of Ceylon, one Australian black, one barman, one gentleman's son brought up to no business, one New Zealand merchant, who had been burnt out, and a second Portuguese, who could not understand a word of English, one person late a lieutenant in the Hon. East India Company's service, and one gipsy. These parties were all either shepherding or hutkeeping, and the gentleman's son, the Jew and the barman, made the best shepherds of the lot. A few miles farther off, at a friend's station, there was a black fiddler and a dancing-master. A large sheep owner told me that he would sooner take a sailor who hardly knew the head from the stern of a sheep, or a clerk who had been in an office all his life, than an Englishbred shepherd. The one class, he said, would obey orders, and be afraid of losing the sheep; the other always thought they knew better than their master. A good opening is

here shown for poor people who have no settled occupation in this country, and who are, therefore, always in danger of the workhouse. Such drifts of English society can always manage a flock of dry sheep, and after a twelvemonth's practice can mind a flock of ewes or weaned lambs.—*The Working Man's Handbook to Australia.*

FAMILY SECRETS.

*ANOTHER CHANGE—AND WHY IT DID NOT LAST.

Not a hundred miles from the residence of the respectable greengrocer lived a clever artizan, who, from the same ruinous habit, was always poor. His dwelling, his person, and all connected with him, displayed those symptoms of forlorn wretchedness that generally attend the drunkard, and all that belongs to him. In course of time, many who had been his companions in intemperance, sank lower and lower in the scale of society—some, through self-inflicted poverty, were driven to the workhouse—some, having had recourse to a second crime for the support of the first, were imprisoned or transported—and some having squandered health and strength, as well as property, died the wretched death of the drunkard. Some, too, like the prosperous greengrocer, had seen the error of their way, and forsaken the paths of the destroyer.

These various issues of an evil course awakened reflection in the mind of Richard Smith, as they are apt to do in the mind of any thinking man. He began to think of his own folly and extravagance in wasting his time, his substance, and his health, as his companions had done before him. Not that he had so mean an opinion of himself as to be afraid of going so far as they had done, or that he could not easily stop at any time he pleased. He was not exactly afraid of becoming quite so poor as to be driven to the Union, like A. B. and C. D., nor at all afraid of so far disgracing himself as to incur legal punishment, like E. F. and G. H. Neither did he suspect himself of being such a fool as to drink himself into the grave, like J. K. and L. M. Yet he could not conceal from himself the fact that he was daily becoming poorer—that he was losing the respect of his sober neighbours—and that he had had one or two ugly attacks of illness, which the doctor, right or wrong, attributed to his irregular habits. All these things considered, he thought it might be as well to stop at once. Besides, there were positive advantages to be gained by such a step. Instead of being a poor man, why should he not become a rich man? If he worked all his time, and spent no more than needs must, what a deal of money he might be saving, and then he might make his money work for him. Why should not he become as rich and as great a man as O——, who began without property, and without education? No reason whatever—and he would be so—and set about it without delay. His resolution was taken, and from the hour it was made, he ceased to be a customer at the public-house or gin-palace. He confined himself to the most simple beverage, and soon found the advantage of so doing, in the increase of health, vigour, and ability to labour—in the increase of his earnings, and in his rapidly accumulating fund at the Savings' Bank. Richard Smith and his family did not exhibit outward signs of prosperity so attractive as those of the costard-monger; for his object was not to make his family comfortable, but to get rich. He was therefore not inclined to increase his expenses in proportion to his resources; and though a sober man cannot help being more decent and respectable in his appearance than a drunkard, decency and respectability of appearance were not attained by any direct effort. His wife, though an industrious, careful woman, had to endure frequent lectures on extravagance. Clothing for the children was scarcely ever furnished by the father, and even when procured by their own industry, or that of their mother, was sure to call forth bitter reproach, as a needless expense. It therefore became a system to conceal such purchases, and wear them only by stealth. Nor was education more liberally provided for by the father. Time he grudged, and money he would not (he said, *could not*) spare. He did not hold with Sunday schools, for he thought it needless to teach religion to children. He was, however, induced to let his children go by the consideration

* See Family Secrets in our last Number

that while at school, they were not wearing out their clothes by play, nor yet making a racket at home; also, that if they picked up a little learning, it might help them the sooner to do something for their own living, and take the burden off his hands. It was well that these sinister motives of the father did not prevent either the diligence of the teachers or the improvement of the children. By dint of strict abstinence, close work, and niggardly hoarding, in course of time Richard Smith found himself in possession of more than fifty pounds, which he invested in railway shares, and for several years went on in a course of successful speculation—and became the possessor of some thousands. Still there was comparatively little improvement in the respectability of his appearance or the comfort of his family. The secret of his wealth was not generally known or suspected. He generally maintained a mysterious silence about it himself, though now and then, in the fulness of his pride, he could not help letting out a hint, by way of compliment to his own wisdom and resolution, about how many square yards might be paved with the golden guineas he had saved since he left off drinking. No one ever heard him speak with thankfulness of the God who gave him power to get wealth, or express a desire that he might be enabled to abide by his resolution, and to discharge the duty of making a proper use of what he had obtained. No, he did none of these things. His proud notion was, that his own power and the might of his hand had gotten him this wealth, and that he had a right to do what he pleased with it, and should never be called to account.

Like most people who have become rich by speculation, Richard did not know when he was well off, but still grasped for more. Tempted by the prospect of some extraordinary gain, he embarked the whole of his property in some new scheme, which in the time of commercial panic was entirely swept away. The small dividend he had to receive amounted but to the same sum as that with which he started—about fifty pounds. Poor fellow! it was a pity to lose all the rest, but even that was no despicable sum. He was as able as ever for work; and, had he but attended to what he neglected before, he might have begun again, and been happier than ever. Unhappily, this was not the course he took. He had not owned God in his prosperity, and he did not submit to his will, or seek his support in adversity. What then? Alas! he went back to his old folly and sin, and became as miserable and degraded a sot as ever. It is easy to perceive why this change was not lasting. To acquire and preserve property, without the disposition to make a good use of it, will neither secure happiness to the individual, nor diffuse comfort and happiness in his family; and worldly wisdom without religion is like a tree without roots.

GARDENING AND RURAL AFFAIRS.

THE MILKING OF COWS.

This is a subject of too much importance to be passed over; and I fear I must add that it is a subject far too much neglected. The milking of cows resolves itself naturally into two heads, viz., how to milk, and when to milk. *How to Milk.*—It is astonishing what difference there is in good and bad milking. 1. If every drop of milk in the cow's udder be not carefully removed after each milking, the secretion will gradually diminish in proportion to the quantity each day left behind. This fact is well established, and is to be well accounted for on philosophic principles, as well as borne out in practice. Nature creates nothing in vain, and the secretion of milk in the cow only suffices to supply that daily lost—the milk left behind in the udder is reabsorbed into the system, and consequently the next milking will be so much the less in quantity. But another reason why every drop of milk should be taken away is to be found in the well-known fact, that the last milk is doubly as good as the first milk—hence, if not removed, there is not merely equal but double loss. 2. Milking should be conducted with skill and tenderness—all chucking and plucking at the teats should be avoided. A gentle and expert milker will not only clear the udder with greater ease than a rough, or inexperienced person, but will do so with far more comfort to the cow, who will stand pleased and quiet, placidly chewing the cud, and testifying, by her manner and attitude, that she experiences pleasure rather than annoyance from the operation. Cows will not yield their milk to a person they dislike or dread. I have taken some trouble to acquire the art of milking, in order that I might be able to describe it. You take the teat in your palm, enclosing it gradually in your fingers, tighter below than above—but not absolutely tight any where—a

portion of the upper part of the hand—the thumb is uppermost—embraces a portion of the udder, and the whole hand is drawn gently downwards, towards the extremity of the teat, between the thumb and the forefinger; very little practice enables the milker to do this with ease, rapidity and tenderness. I need not say, let the hands be carefully washed before each milking; but I dare say it is seldom thought necessary to wash the cows' teats before milking. This nevertheless should be done, and it will then be found that the milk will flow more freely with any teats than if you merely wet them with milk; at least I find it so, and think myself an expert milker. —We now require to consider *when the cows are to be milked*—a question again resolving itself into two minor ones, viz., at what hours, and how often? The ordinary practice is to milk cows twice daily—at about five o'clock in the morning, or in winter as soon after daylight as possible, and again at the same hour in the afternoon, thus leaving twelve hours' interval between each milking. Some recommend milking three times a-day during the summer months, stating as their reason, that the cows are then after calving, and flush of milk, and that the three milkings are calculated to increase the quantity of the secretion. Some even recommend four milkings during the season. There can be no question but that, when fed in proportion, such a constant demand would necessarily increase the quantity of the milk secreted; but then it is likely that the same causes might produce such a depression in the secretory system as is naturally consequent upon unusual excitement—as would cause a decrease of milk in autumn and winter, in about an equal ratio. —*Ayr Agriculturist.*

PRESERVATION OF FRUITS

We are told, by credible eye-witnesses, of a practical application of the theory of temperature in the preservation of fruits, flowers, and vegetables, which has recently been patented by a citizen of Philadelphia, and which is now actually in operation. A large apartment is built under ground, the sides of which are lined with a double wall, containing sawdust. Over the ceiling is a room filled with ice, which, gradually melting, filters through the sawdust, and keeps the temperature of the underground apartment always at thirty-four degrees Fahrenheit, just two degrees above frost point. In this apartment lemons, apples, oranges, flowers, strawberries, &c., are preserved with complete freshness for any desirable length of time. A gentleman connected with this office saw apples, perfectly fresh and as fragrant as when first ripe, that had lain in this preservatory since October last. Lemons, too, are there as fresh as ever, which were imported months ago, and bought for five levies (silver coins value 7d. each) a box, being now worth as many dollars. Flowers, berries, and the most perishable fruits have been kept in the same manner long enough to show that the preservative powers of the place are probably indefinite, and that hereafter no obstacle will exist to the enjoyment in midwinter of all the luxuries of the summer.—This is almost as good as capturing a city.—*Philadelphia Native American.*

MUTUAL IMPROVEMENT.

Two young men were employed in a garden, one of the two had received a liberal education—he understood several languages, wrote a good hand, and studied his profession scientifically; the other was no scholar, he had not had an opportunity of learning much from books, but he possessed much native shrewdness and good sense, and a strong desire to acquire useful knowledge, he had also obtained much practical experience. These young men became mutually helpful to each other. In their leisure time the educated youth taught the other to write. He made him acquainted with the elements of English grammar, and as much of Latin as enabled him to understand, pronounce, and write correctly the scientific names of plants, and their distinction into classes and orders. In return, the young tutor obtained much practical knowledge, for his companion had been at work in the garden all the years that he had been at school. Thus, at the close of their connexion, each was much more advanced in the scientific and practical knowledge of his business than he could have been alone. Several friendly letters afterwards passed, acknowledging their mutual obligations, and informing each other of their progress. When the young man who had been deficient in early advantages became head-gardener to a gentleman of fortune, he sent his friend a present of a melon, and some other specimens of choice things that he had raised, accompanied by a letter informing him particularly about his situation—the trusts reposed in him —the accounts he had to keep, and the correspondence he had to maintain. 'And how,' he gratefully added, 'could I have done all this, if it had not been for a good friend who taught me what I should never have known without him.' His friend felt himself not less indebted for being permitted to share in practical knowledge which he had not had an opportunity of acquiring by personal experience. So it is that when persons are well inclined and intent on improvement, 'Two are better than one,' for the knowledge of the two becomes a common stock by which each may enrich the other, without impoverishing himself.

VARIETIES.

TRADES IN LONDON.—168,701 domestic servants; 29,780 dress makers and milliners; 28,574 boot and shoemakers; 23,517 tailors and breeches makers; 20,417 commercial clerks; 18,321 carpenters and joiners; 16,220 laundry keepers, washers, and manglers; 7,151 silk manufacturers, (all branches); 7,002 seamen; 6,743 bricklayers; 6,716 blacksmiths; 6,618 printers; 6,450 butchers; 5,499 booksellers, bookbinders, and publishers; 4,980 grocers and tea-dealers; 4,861 tavern-keepers, publicans, and victuallers; 4,290 clock and watchmakers.—*Hand-book for London.*

WONDERS OF NATURE.—The comparative strength of the insect tribes has ever been a subject of wonder and of admiration to the naturalist. The strength of these minute creatures is enormous; their muscular power in relation to their size, far exceeds that of any other animal. The grasshopper will spring 200 times the length of its own body. The dragon-fly, by its strength of wing, will sustain itself in the air for a long summer day with unabated speed. The house-fly makes 600 strokes with its wings, which will carry it five feet in every second.—*Poetry of Science.*

FRIENDS AND RELATIVES.—Intimate friends and relations should be careful when they go out into the world together, or admit others to their own circle, that they do not make a bad use of the knowledge which they have gained of each other by their intimacy. Nothing is more common than this, and did it not mostly proceed from mere carelessness, it would be superlatively ungenerous. You seldom need wait for the written life of a man to hear about his weaknesses, or what are supposed to be such, if you know his intimate friends or meet him in company with them.—*Helps.*

FUTILITY OF PRIDE.—Alexander the Great seeing Diogenes looking attentively at a large collection of human bones piled one upon another, asked the philosopher what he was looking for. "I am searching," said Diogenes, "for the bones of your father, but I cannot distinguish them from those of his slaves."

OBEYING THE GREAT CHRISTIAN PRECEPT.—The golden rule of doing to others as we would be done by, would never have led us into such wastefulness and extravagance as what you have seen. If we in the town and country, landlords and tenants, employers and employed, had endeavoured to make the material, moral and spiritual condition of our neighbours as healthy as we would wish our own to be, we should have found our reward literally here upon earth. I have shown you the costliness of neglect; but in this, as in all other cases, we shall be deceived and led astray if we begin in a wrong spirit. If we seek merely that which is expedient, no foresight and calculation will be sufficient to guard us against error. Shrewd calculators enough there have been at Liverpool, but all their shrewdness and calculation has not prevented the waste of hundreds of thousands on ill health. Had one-half of that energy and thought been devoted to their duty to their neighbour by that wealthy community, how much richer would they have been! 'Seek ye first the kingdom of God and his righteousness, and all these things shall be added unto you.'—*A Lecture on the Unhealthiness of Towns, &c., by Viscount Ebrington.*

FIRE-PROOF CEILINGS OF WIRE-WORK have been successfully applied, in place of lath, with plaster and stucco as usual, at the Chester Lunatic Asylum. The wires are about a quarter of an inch apart, and the plaster forms an adhesive and serviceable mass, even on both sides. The wire is galvanized, or japanned, to prevent corrosion. Not only ceilings, one would think, but thin partitions and walls in general, might be wired in place of lathed, and risk of fire thus greatly diminished by a process neither patented nor costly.—*Builder.*

ENEMIES.—Have you enemies? Go straight on, and mind them not. If they block up your path, walk around them, and do your duty regardless of their spite. A man who has no enemies is seldom good for anything: he is made of that kind of material which is so easily worked, that every one has a hand in it. A sterling character—one who thinks for himself, and speaks what he thinks—is always sure to have enemies. They are as necessary to him as fresh air; they keep him alive and active. A celebrated character, who was surrounded with enemies, used to remark—'They are sparks which, if you do not blow, will go out of themselves.' Let this be your feeling while endeavouring to live down the scandal of those who are bitter against you. If you stop to dispute, you do but as they desire, and open the way for more abuse. Let the poor fellows talk; there will be a reaction if you perform but your duty, and hundreds who were once alienated from you will flock to you and acknowledge their error.—*Alexander's Messenger.*

SERVANTS' PROVIDENT SOCIETY.—We wish to correct an error which by some misunderstanding has confused our account of this Society in No. 20 *Family Economist.* It appears that annuities are not granted by the institution in Sackville Street, but by another Society at No. 8, Cork Street, Piccadilly—both establishments are however well worthy of support.

POLITENESS.

We wish it were possible to convince every man, woman, and child, of our acquaintance, that politeness is a most excellent good quality; that it is a necessary ingredient in social comfort, and a capital assistant to actual prosperity. Like most good things, however, the word politeness is often misunderstood and misapplied; and before we urge the practical use of that which it represents, it may be necessary to say what it means, and what it does not mean.

Politeness is not hypocrisy: — cold-heartedness, or unkindness in disguise. There are men who can smile upon a victim, and talk smoothly, while they injure, deceive, or betray. And they will take credit to themselves, that all has been done with the utmost *politeness;* that every tone, look and action, has been in perfect keeping with the rules of good breeding. 'The words of their mouth are smoother than butter, but war is in their heart: their words are softer than oil, yet are they drawn swords.' Perish for ever and ever such spurious politeness as this!

Politeness is not servility. If it were so, a Russian serf would be a model of politeness. It is very possible for persons to be very cringeing and obsequious, without a single atom of politeness; and it often happens that men of the most sturdy independence of character, are essentially polite in all their words, actions and feelings. It were well for this to be fully understood, for many people will abstain from acts of real politeness, and even of common civility, for fear of damaging their fancied independence.

A lady traveller in America, gives us, very pleasantly and graphically, an instance of this common mistake. 'We were,' she says, 'rather entertained by the behaviour of a young Scotchman, the engineer of the steamer, on my husband addressing him with reference to the management of the engine. His manners were surly, and almost insolent. He scrupulously avoided the least approach to courtesy or outward respect; nay, he even went so far as to seat himself on the bench close beside me, and observed, that among the many advantages this country (Canada) offered to settlers like him, he did not reckon it the least of them, that he was not obliged to take off his hat when he spoke to people (meaning persons of our degree), or address them by any other title than their name; besides, he could go and take his seat beside any gentleman, or lady either, and think himself to the full as good as them.'

'Very likely,' I replied, hardly able to refrain from laughing at this sally; 'but I doubt you greatly over-rate the advantage of such privileges, for you cannot oblige the lady or gentleman to entertain the same opinion of your qualifications, or to remain seated beside you, unless it pleases them to do so.' With these words I rose up, and left the independent gentleman evidently a little confounded at the manœuvre: however, he soon recovered his self-possession, and continued swinging the axe he held in his hand, and said, 'It is no crime, I guess, being born a poor man.'

'None in the world,' replied my husband; 'a man's birth is not of his own choosing. A man can no more help being born poor than rich; neither is it the fault of a gentleman being born of parents who occupy a higher station in society than his neighbour. I hope you will allow this?'

'The Scotchman was obliged to yield a reluctant affirmative to the latter position; but concluded with again repeating his satisfaction at not being obliged in this country to take off his hat, or speak with respect to gentlemen, as they styled themselves.'

'No one, my friend, could have obliged you to be well-mannered at home, any more than in Canada. Surely you could have kept your hat on your head if you had been so disposed; no gentleman would have knocked it off, I am sure. As to the boasted advantage of rude manners in Canada, I should think something of it if it benefited you the least, or put one extra dollar in your pocket; but I have my doubts if it has that profitable effect.'

'There is a comfort, I guess, in considering one's-self equal to a gentleman.'

'Particularly if you could induce the gentleman to think the same.' This was a point that seemed rather to disconcert our candidate for equality, who commenced

whistling and kicking his heels with redoubled energy.

'Now,' said his tormentor, 'you have explained your notions of Canadian independence; be so good as to explain the machinery of your engine, with which you seem very well acquainted.'

The man eyed my husband for a minute, half sulking, half pleased at the implied compliment on his skill, and, walking off to the engine, discussed the management of it with considerable fluency, and from that time treated us with perfect respect. He was evidently struck with my husband's reply to his question, put in a most discourteous tone, 'Pray, what makes a gentleman? I'll thank you to answer me that.' 'Good manners and good education,' was the reply. 'A rich man or a high-born man, if he is rude, ill-mannered, and ignorant, is no more a gentleman than yourself.'

Now, we put it to any one, whether the engineer who figures in the above sketch, advanced his real independence a single step by casting aside the claims of society, upon each one of its members, for the exercise of politeness? We wish that such examples were rare, or that they were confined to the western hemisphere; but we need not go to Canada to witness almost daily instances of the same mistake, in which rudeness is evidently set down for liberty, and politeness understood to mean servility. Such ideas are entirely erroneous, and, like all errors, result in mischievous consequences.

True politeness, as we understand it, is kindness and courtesy of feeling brought into every-day exercise. It comprehends hearty good will towards everybody, thorough and constant good-humour, an easy deportment, and obliging manners. Every person who cultivates such feelings, and takes no pains to conceal them, will necessarily be polite, though he may not exactly know it; while, on the other hand, a man essentially morose and selfish, whatever may be his pretensions, must be very far from truly polite. Such persons often put us in mind of the following doggrel:—

'There was a lady loved a swine;
Honey! says she,
I'll give you a silver trough;
Hunk! says he.'

For do what you will, you can rarely get them beyond the expressive *Hunk*.

It is very true there are others whose position in society, compels them to observe certain rules of etiquette which pass for politeness. They bow or curtsey with decent grace; shake hands with the precise degree of vigour which the circumstances of the case require; speak just at the right time and in the required manner, and smile with elegant propriety. Not a tone, nor a look, nor a gesture shall be out of place; nor a habit indulged which etiquette forbids; and yet there will be wanting, after all, the secret charm of sincerity and heart-kindness which these outward signs are intended to represent; and wanting which, we have only the form, without the essence, of politeness.

We would, therefore, recommend, far beyond all the rules ever penned by a Chesterfield, the cultivation of kind and loving feelings towards all men. We advise you, reader, to look upon every man, you come in contact with, as a brother; upon every woman, as a sister. *All* having claims upon you for respect, sympathy, forbearance, and help; and we engage to say, if you throw your heart and soul into this lesson, you will have made large advances towards the perfection of politeness; for 'out of the abundance of the heart the mouth speaketh;' and the movements of the outward man follow faithfully the hidden springs of action within.

There cannot be genuine politeness to any happy degree, where there is not self-respect. It is this which imparts ease and confidence to our manners, and impels us, for our own sake, as well as for the sake of others, to behave becomingly as intelligent beings. We do not like the kind of politeness, falsely so called, which is too often instilled into the children of the poor, by self-styled patrons and patronesses. They are taught to pay homage to wealth and station, as though wealth and station were the only virtues under heaven worth regard; while self-respect is nipped in the bud by the false assumption of their too condescending benefactors. Be all such injurious lessons consigned to oblivion. There are vastly too many of them, and just in proportion as they exercise their pestilential influence over 'the cottage homes of England,' may we expect to have an uncultivated and an uncivil peasantry — selfish and cringeing to a few, insolent and rude to

the many, and overbearing and boisterous in their own immediate sphere. But let the poor be led to feel that they have mind as well as body—that,

> 'The rank is but the guinea's stamp,
> A man's a man for a' that.'

and they will feel also the claims of every fellow-creature upon them for kind-hearted politeness.

A polite cottager! A polite waggoner or thresher! A polite mechanic! A labourer's polite wife! We fancy how some persons might scorn the incongruity of ideas, as they would be pleased to call it. And many a one ranking among the poorer classes of society will perhaps, unthinkingly say, 'No, no, politeness and poverty do not fit well together. We don't wish to be polite; we leave that to gentlefolks.'

But, really, there is no such incongruity. Why should not poor men and women, feel kindly and act kindly? If they fall in with strangers, what is to prevent a frank, hearty and open communication of ideas, and a courteous way of expressing them? In their intercourse with neighbours, why should the pleasant influences of mutual respect, and mutual sympathy, be wanting? And in their own families, why should all regard to feeling be laid aside, and each one seem to act upon the selfish principle, of 'Each one for himself, and God for us all,' as is too often the case? Why?

It is a want of true politeness that introduces the discord and confusion which too often make our homes unhappy. A little consideration for the feelings of those whom we are bound to love and cherish, and a little sacrifice of our own wills would, in multitudes of instances, make all the difference between alienation and growing affection. The principle of genuine politeness would accomplish this; and what a pity it is that those whose only spring of rational enjoyment is to be found at *home*, should miss that enjoyment by a disregard of little things, which, after all, make up the sum of human existence!

What a large amount of actual discomfort in domestic life would be prevented, if all children were trained, both by precept and example, to the practice of common politeness! If they were taught to speak respectfully to parents, and brothers, and sisters, to friends, neighbours, and strangers, what bawlings, and squallings, and snarlings would be stilled! If their behaviour within doors, and especially at the dinner table, were regulated by a few of the common rules of good breeding, how much natural and proper disgust would be spared! If courtesy of demeanour, towards all whom they meet in field or highway, were instilled, how much more pleasant would be our town travels, and our rustic rambles! Every parent has a personal interest in this matter; and if every parent would but make the needful effort, a great degree of gross incivility, and consequent annoyance, would soon be swept away from our hearths and homes.

We venture, lastly, to recommend politeness, as a branch of family economy. We take it for granted, that in this world of competition, and in a country of abundant, if not superabundant labour; there must and will be different degrees of success and consequent prosperity; and that 'the weakest go to the wall.' Skill, honesty, and sobriety, must be the main recommendations of all whose subsistence depends upon the labour either of hands or head; but all things else being equal, the greater probability of well-doing is theirs who, by attention to the courtesies of every-day life, avoid all grounds of just offence, and bespeak for themselves the favourable regards of those to whose good will they must look for an opportunity of distinguishing themselves as Working-Men. We should be very glad for this aspect of True Politeness, to be well studied by all whom it may concern; for we know there are hundreds of families in which the exercise of this very desirable attainment would do more to secure respectability and advancement in life, than many an economical contrivance if accompanied by a rude and uncivil deportment.

We may, in some future page of the *Family Economist*, offer a few plain rules of good breeding, which it is incumbent upon all to reduce to practice; meanwhile we recommend as a safe direction, and one that is universally applicable to every rank, station, and condition, a few words in which lies hidden the germ of true politeness. '*Be kindly affectioned one towards another, with brotherly love; in honour preferring one another.*'

THE WONDERFUL SIXPENCE.

AN ANECDOTE OF REAL LIFE.

On a lovely morning in the month of May, as I was travelling in the neighbourhood of a small town in the county of Salop, I was overtaken by a young man of rather grave countenance, and probably about 25 years of age. Happening to be both travelling the same way, we soon fell into conversation about the state of trade, money matters, and other subjects. After we had conversed together a short time on these, he broke out with the following words,—'Well, sir, I will relate to you an anecdote of a boy who was very well known to my father, to show you what can be done with a very small sum of money. The parents of this boy were so poor, that they could not afford to take more than two scanty meals each day. The father, in fact, was not able to earn a livelihood for his family, in consequence of a paralytic stroke, with which he was attacked when the subject of this story was not more than nine years old, so that what little they had to depend upon came wholly from the parish. When this boy was about eleven years of age, a neighbouring farmer one day employed him to assist in driving a few pigs to market, for which he gave him sixpence. The boy on receiving this was so overjoyed that he did not at first know what to do with it; but after considering a short time on the subject, he at last resolved to give it to his parents. When he got home, however, they refused it, saying that, as he had done the work, he had the greatest right to the money. A few days after this, while he was in company with some other boys about his own age, one of them happened to commence talking about rabbits, and told his companions what he had gained by them in the course of last year. This account produced such an effect on the mind of James Hall (for that was the boy's name,) that he resolved to try what he could gain in the same way. So with his sixpence he purchased two young rabbits, a male and a female, which, when he had kept them a few months, produced four more. Two of those he sold, when they were one month old, for 3*d.* each, so that by this time he had his sixpence again, and four rabbits besides. Next year the produce of his rabbits brought him 15*s.*, with which he purchased a few potatos, and rented a small piece of land to plant them in. When he had raised his potatos, he found that he had fifteen bushels, three of which he kept to plant the following year, and the other twelve he sold at the rate of 2*s.* 6*d.* per bushel, which, with 10*s.* saved by his rabbits, came to £2. The following year he went to service, and gave the rabbits to his parents. He, however, rented a larger piece of land for raising potatos; this piece yielded him sixty bushels, which he sold at 3*s.* per bushel, and having saved 10*s.* out of his wages, he had therefore £9. 10*s.* in his possession. The death of his father, whose funeral expenses cost him £2. 10*s.* reduced his money to £7. In the following year he rented half an acre of land for potatos, which cost him £3. 4*s.*; this piece yielded him fifty-six bushels, which he disposed of at 3*s.* per bushel. The amount, added to £4. 16*s.* which he had in hand, and £1. saved out of his wages, came to £30. 4*s.* The next year he lent £20. out at interest, at the rate of five per cent.; with the rest he rented two acres of land, which yielded 312 bushels. The produce he sold at 2s. 6*d.* per bushel, which, added to the other £20. and its interest, and £1. 10*s.* laid up out of his wages, came to £61. 10*s.* Next year he lent out £50. at the same interest as before; with the remainder he rented two acres of land, which produced 320 bushels of potatos. These he sold at 3*s.* per bushel, which, added to the £50. and its interest, and £2. laid up out of his wages, came to £102. 10*s.* But having to pay £1. 10*s.* to a man for raising his potatos, his money was reduced to £101. About this time he left service, married, and rented a small farm, and by constant perseverance and making a right use of his property, he soon became the most opulent farmer in the neighbourhood, and died worth more than £20 000.—*Manchester Spectator.*

DEATH CLUBS.

Most readers know that history often reveals very startling and shocking events: it tells us of war with all its attendant horrors – of frightful famines—and makes us shudder with accounts of starving wretches feeding on human flesh, of mothers devouring their own offspring. We feel that deeds so repulsive as these last-named, can only be perpetrated by those who are in the very depths of despair; and yet, here in Christian England, crimes are committed every year quite as horrible to contemplate as a feast on human corpses. We do not mean to say that parents roast and eat their children, but they do what is as bad or worse—they kill them by neglect, by improper treatment, and sometimes by poison for the sake of money which they get from a burial club, and in this way they may be said to commit the double crime of killing their own flesh and blood, and devouring it afterwards.

Such wickedness almost surpasses belief, but it cannot be doubted when once we know the particulars. Public attention was first drawn to the facts, we believe, by Mr. Chadwick in 1843, he stated that in Manchester, Preston, Stockport, and other large towns, children were poisoned by their parents after being entered in a burial-club in order to obtain a sum of money which being more than sufficient to bury the body was spent in drinking and debauchery. We read also that 'a minister in the neighbourhood of Manchester expressed his sorrow on observing a great want of natural feeling, and great apathy at the funerals The sight of a free flow of tears was a refreshment which he seldom received He was, moreover, often shocked by a common phrase amongst women of the lowest class—"Aye, aye, that child will not live; it is in the burial club."' And in another place—'The wife of a clergyman told me that, visiting a poor district just when a child's death had occurred, instead of hearing from the neighbours the language of sympathy for the bereaved parent, she was shocked by such grudging observations as—"Ah! it's a fine thing for her (the mother); the child's in two clubs!"'

In one instance, a drunken father entered his infant in no less than ten clubs; 'she was a fine fat child when born, but soon became quite thin, was badly clothed, and seemed as if she did not get a sufficiency of food. In fact, there was every reason to believe that the child died of starvation; the parents had six other children all of whom died at about the age of eighteen months under similar circumstances, and for the one above-mentioned, the father obtained £34. 3*s*. from the several clubs. One pound was perhaps sufficient to pay the funeral expenses; at all events a profit of £30. was made by the child's death. Generally speaking it is girls who are suffered to perish, boys are more valuable as they grow up to work in the factories. At Stockport, a man was transported for life for poisoning his three children, and many other cases were proved, all showing great recklessness and carelessness of life.' In one instance, a man went to the secretary of the club, and asked whether, if he were to commit suicide, his widow would be entitled to the burial money? The secretary stated that, there being no rule against it, he thought the survivor would be entitled. The man, having fully satisfied himself on this point, went away and took poison. The amount of burial money gained was supposed to be £50.' Such fatal results are now happily to a great degree guarded against by a change in the law which declares that, 'if the assured shall die by his own act, whether sane or insane, the policy shall be void.'

Any one who has read the newspapers will not need to be reminded that since the period above referred to, the evil has still continued. We quote from the *Times*. —'At York Assizes in July, 1846, John Rodda was convicted of the wilful murder of his own child, aged one year. The evidence proved that the wretch poured a spoonful of sulphuric acid down his hapless infant's throat. It was proved that he had said, "He did not care how soon the child died, for whenever it died he should have £2. 10*s*., as it was in a *dead list*." He said he had another that would have the same when it died, and two others that would have £5. a-piece when they died.' 'In July, 1847, Mary Ann Milner, was charged in three separate indictments with the wilful murder, by arsenic of her mother-in-law, her sister-

in-law, and her niece ; her father-in-law had also well nigh become her victim, and was reduced to imbecility from the effects of the poison. The only imaginable motive for the conduct of the prisoner, as suggested by the counsel for the prosecution, and supported by the evidence, was *the obtaining moneys from a burial society.*' Another woman poisoned her son for £9. and another her husband for £20., and still more recently who has not heard of the poisonings in Essex, and at Bristol? in fact, there is scarcely a county in England which has not helped to make up this horrible catalogue of crime.

But a more fearful consideration remains: besides those that we hear of how many more of such murders are there which never come to light? and which we may hope would never have happened had it not been for the temptation offered by the burial clubs. A late writer observes—'No one can guess how many more victims—infants especially—have been poisoned or otherwise destroyed for the sake of the coveted burial money, though neither inquiry nor suspicion may have been excited ; nor how many children, entered by their parents in burial clubs, are, when attacked by sickness, suffered to die, without any effort being made to save their lives. But that the predominant feeling in the mind of a parent whose sick child is in a club is too often fixed on the money which can only be obtained by that child's death, no one can doubt who has seen the working of these societies.' A report on the sanitary condition of Preston, by the Rev. J. Clay, given in the 'First Report of the Health of Towns' Commission, 1844, furnishes startling evidence of the wide prevalence of this feeling. A collector of cottage rents states, that 'Almost all the children in the families where he collects are members of burial societies. . . The children of the poor, when sick, are greatly neglected ; the poor seldom seek medical assistance for sick children, except when they are at the point of death' Another collector states, 'The poor people have often told me that they were unable to pay at that time ; but when a certain member of the family—generally a child—died, they would be able to pay.' . . . 'A lady states that a young woman whose services she required as wet-nurse having a child ill, she offered to send her own medical friend to attend it ; the reply of the nurse was, "Oh, never mind, ma'am, it's in two burial clubs."' From Mr. Clay's report it also appears on the unimpeachable authority of a burial club official, that 'hired nurses speculate on the lives of infants committed to their care, by entering them in burial clubs ;' that 'two young women proposed to enter a child into his club, and to pay the weekly premium alternately. Upon inquiry as to the relation subsisting between the two young women and the child, he learned that the infant was placed at nurse with the mother of one of these young women.' Such examples—even if there were none of a still worse character—are enough to show the demoralizing tendencies of burial clubs. But further, Mr. Clay says, 'There is no restriction in any of the societies as to the admission of illegitimate children. If the weekly penny or halfpenny is paid by either father or mother, he or she is entitled, on the demise of the insured, to all the benefits which the society promises.' Now, what solicitude can either of the ignorant and profligate parents of a bastard child have for that child's life?—a child which is a burden and a reproach to them ; which, living, costs them 3*s.* or 4*s.* a-week ; but whose death, should it be in the 'lists,' will profit them to the amount of £5. to £20.? What, indeed, can be the fate of such a child?

Truly are such societies as above indicated named *Death Clubs*, for they lead to a fearful destruction and waste of human life. Some persons, however, say that it is a sign of prudence and forethought, when a parent enters a child in a burial-club. We do not deny the forethought, but is it genuine? does it arise out of a desire for the child's welfare? Is it not rather a speculation on the child's suffering or misery? Why is it that such parents do not subscribe to some society which will secure good medical advice and attendance for their family in case of need? or why do they not endeavour by small payments to obtain a sum which may assist in putting out one of the boys to a useful trade? No: they will do something for his death, but not for his life. We do not admire such forethought.

The writer already quoted states, that in a town of 61,000 inhabitants, there

were eleven burial clubs, and the whole number of persons entered in these clubs was 54,000 ; and in a town of 36,000 inhabitants, 34,100 were entered in a *single* club. These two examples alone will serve to shew how widely the facilities for doing evil, for giving way to temptation are extended. This is confirmed by the testimony of a medical man, who says—'With respect to the attendance which the poorer classes give to their children in sickness, I am sorry to say it is generally anything but what it ought to be. If they seek medical aid at all, it is when there is too often not the slightest chance of recovery. Very few of the children of the operative class, in sickness, fall under the notice of the medical men of the town. But, latterly, there has been a disposition to call us in, in the last stage of disease, for the purpose of obtaining a certificate of death for the registrar. Three years' experience at this institution, compels me to admit—what is very painful to acknowledge—that there is amongst the poorer classes a manifest and cold indifference to the health of infants, and especially so when suffering from disease.' These are grave facts, and how impressively do they appeal to the wise, the good, the benevolent for exertions which under Providence may counteract or rectify so depraved a standard of morals. Let us reflect for a moment—how low must a people be sunk who can resort to such practices. How completely must their conscience, their aspirations, every better feeling of humanity be extinguished by their foul and selfish sensuality.

How endearing is childhood! In earliest infancy the mother finds a thousand charms and delights in her babe, its very helplessness inspires affection, its first smile is a rapture, the first beam of intelligence in its wandering eye a joy. Every day some new dumb manifestation reveals itself as though designed by Providence to reward the parent for her constant cares and watchfulness. And then the first word lisped by the infant! who shall describe the mother's emotions on hearing it? they all help to invigorate her enduring love which survives in after life even through long years of unrequital. Can a mother forget her sucking child?

To those of rightly constituted minds such love seems to be and is the natural outpouring and bond of life. How much then must that nature be perverted which leads a mother to destroy her own offspring. The root of such evils lies deep down in the darkness of ignorance ; let then the ignorance be removed and the temptations will be weakened.

'But something more is required than the abolition of burial-club temptations. The universal support given to such associations indicates a mental and moral condition which ought not to be found at all among a civilised and Christian people. The woman who replied to a kind offer of aid for her sick child, "Thank you ; it's in two burial clubs," was perfectly unconscious of the deplorable character of the feeling which her words betrayed. Such unconscious yielding to the demon of covetousness is demoralizing thousands of our poor, though, on the other hand, thank Heaven! there are many humane enlightened men among them who see the evil in its real aspect, and do their best to counteract it. They see clearly, that religious instruction, sound and useful knowledge, sanitary improvement, wider and kinder intercourse between the wealthy and the poor, between the intelligent and the ignorant, must be perseveringly and affectionately cultivated, in order that such shocking thoughts as are suggested by burial-clubs may be rejected and spurned as universally as they are now, alas! encouraged. But, in the meantime, while we are taking steps to bring the patient to his right mind, his blind inclination to mischief must be effectually restrained. The sacrifice of the innocents must be stopped at once and for ever. If in this Christian land and time we do not allow our children to pass through the fire, in idolatry of Moloch, neither must we suffer them to enter burial-clubs for love of Mammon.'

THE SELF-ADVANCEMENT OF EDWARD BLAKE.

BY MARTIN DOYLE—PART II.

THAT Ned adopted a true economy in doing without horses altogether from his small holding, I shall endeavour to prove. I have often wondered at the extrava-

gance of keeping horses on little farms, where they cannot be worked a full fourth of their time, unless indeed they can be let out for hire, or unless the occupiers of such farms live near the sea-coast, where the cartage of sand and sea-weed affords frequent and beneficial labour. If three or four small holders combined to maintain one good team, employment would be constant for the horses, and the ploughing and the harrowing would be good; but it would be difficult to make those little farmers agree as to the apportionment of a day's labour to each farm, and the due shares of expense.

I may mention a case in point. Four mountain tenants in the county of Donegal, had one horse in common: each party was bound to keep one hoof properly shod. Three of the parties fulfilled their engagement with tolerable punctuality; but the fourth having neglected one hoof, the horse became lame. Of course the parties went to law; three of them deposed that they had put on the requisite number of shoes, whilst it was proved that their co-partner had neglected *his* hoof for a long time, in consequence of which four farms were left without horse-labour, and the unfortunate animal became lame. Ned was resolved neither to be dependent on hired horse-work, nor to take a share in a joint stock company of horse-keepers.

Let us now see by going into particulars, whether Ned was right or not in preferring spade-husbandry to horse-labour. I shall estimate four horses for every 100 acres of tilled land in England—though a team of three is there considered enough in many districts for that extent of land—and two for every holding of sixteen acres in Ireland. There would, therefore, be in six Irish holdings (containing a fraction more than sixteen acres each) twelve horses, that is, more than three times the number employed on English farms. Supposing the keep of each horse to average £15. a-year, the cost to the occupier of sixteen acres will be £30. a-year, or £1. 17*s.* 6*d.* per acre, for horse-labour, whereas the cost to the English farmer, is only £60., or 12*s.* per acre. This, whether in a national point of view, or only as regards individual farmers is a very important consideration.

The Irish small farmer will, however, dispute the correctness of this calculation: He will argue in this manner,—'my little horses do not require so much bulk of food, as the large English horses consume, nor do they taste beans nor oats, unless it be an odd sheaf of the latter now and then in spring, when they are worked very hard. They are pastured throughout a great part of the year, and during the remainder are fed on hay alone, of indifferent quality, or on straw with chopped furze and a few potatos and bran mixed together.'

I admit the correctness of all this; but my argument is not thereby defeated, because there is a counterbalancing loss sustained in other particulars, which in fact, is more than a set-off against the extreme economy in the keeping. Horses grazed on over-fed pasture, or turned out to pick scanty mouthfuls of sour vegetation by a ditch-side, or shut up in a stable to chew oat-straw, cannot work with vigour. If time be of value, that is lost in the slowness with which weak and ill-fed horses execute their work. Time is lost by the ploughman, who turns but half or two-thirds at most, of the furrows which he would turn with strong and well-kept horses in the same number of hours. There is an increase of labour and fatigue too to the ploughman, who instead of walking steadily between the stilts while the plough cuts its way smoothly and perfectly, and lays the evenly divided furrow slice at the proper angle, is struggling to keep the plough in the land, and kicking with the right leg as he goes along; making it do the double duty of a stride, and a strike of the foot in aid of the mould board, in order to prevent the furrow slice from falling forwards into its original place, when the plough-share has wriggled itself a few feet onwards—the mould-board being so imperfectly constructed as to be unable to perform its part of the operation.

There is profit lost by the use of a driver; (for in the rude practice of the West of Ireland, the small farmer must have one, unlike the cultivator on the east coast, who adopting the Scotch mode usually dispenses with a driver), for he spends his day in coaxing or flogging forward a pair of sweating, panting, ill-fed horses staggering against each other for support; and he must frequently press with both hands and arms on the beam in order to keep the sock under the sod, or

lean on it with a forked stick, and all this to assist in performing one-half less work than an English team with three horses, and a ploughman and boy can execute so much more effectually, or than a Scotch plough with a pair of horses and one man can do in the same space of time.

There is loss sustained from the shallowness and other defects of the ploughing, and the deficiency in the crop which follows bad ploughing.

There is loss also in the rapid deterioration in the value of the animals, which though they may be bought cheaply in comparison with the English team, last but for a short time, are sold for less than they cost, and are often a *dead* loss from mange or other disorders arising from bad keeping, whereas a well-fed horse moderately and regularly worked will increase in worth for a few years, and not lose value for a very lengthened period.

There is loss in the pasturage which the Irish farmer hardly admits to be an item of cost in his account. Every blade of grass which the horse consumes would be beneficially used by a cow or sheep, and if the pasture-field were cropped with corn or any other marketable produce, the net value of those crops which the field might have been made to yield, but which it was not made to yield—because it was grazed by horses—ought to be charged to the account of those horses.

The more that Ned reflected on his determination to do without horses, the more he was convinced that the poverty of his neighbours who had so little farm-produce to sell, was attributable frequently to their keeping a number of unnecessary horses, in miserable condition.

Ned's wife was entirely of her husband's opinion respecting this point of economy, (and it is a great family secret to have man and wife of the same opinion.) Cows were more to her taste, and decidedly more profitable than horses, and I hope to show in the course of the narrative how much of the prosperity of this couple is attributable to this their first step in economy. Ned was heard to repeat a scrap of doggrel poetry, which he had seen prefixed to my 'Hints to Small Farmers,' which were compiled many years ago, just to set wiser and more experienced writers going in the same humble path of designed usefulness.

> 'Let little farmers mind their spades,
> Nor think of keeping four-legged jades,
> The proverb long ago decides
> Which way a mounted beggar rides.

Ned ascertained that he could have his land dug or forked (with a prong 14 inches long, and 7½ broad) for 1*d.* the statute perch, that is 13*s.* 4*d.* per acre, which was about half the cost of men's labour in Berkshire. He had been informed that in England, the expense of digging (or forking) land, is from 2*d.* to 2½*d.* per rod (or perch,) and yet that it has been found there even on a very large scale, more advantageous than ploughing. He therefore concluded, that digging must be preferable to ploughing on a large farm *in those parts* of Ireland, where men can be hired for less than half the average wages paid in England, and much more so, on a scale of cultivation so small as his. In truth, his farm was no larger than many market-gardens, in which neither plough nor harrow enters.

But Ned's allotment of *tillage* ground soon became even more reduced than it had become by the sale of his four acres. The lot of three acres of meadow-land at the lower end of his farm was very favourably situated for irrigation. Near it at a few feet higher level flowed a small river, which after describing a short curve fell over a ledge of rocks immediately below the farm.

Ned, it may be remembered, had been on the banks of the river Kennet, which has been rendered a source of fertility to many hundreds of grass-fields. When he first saw the water-meadows there, in summer—the prodigious crops of hay, cut twice in the year, and the luxuriant covering of after-grass, he could hardly believe that all this produce was occasioned by systematic watering from the river, which appeared to him to be too nearly on a level with the crowns of the very high ridges into which those meadows have been formed to admit of their being artificially watered by it. He was quite ignorant, at that time, that water may be easily conducted from one part of a field to another, though there be but a trifling descent for the streams by means of weirs and sluices, and water-courses and feeders, and tail-drains, &c., which conduct the water from place to place, until, after being diffused and collected, alternately, it is reconveyed at the

lowest point to the river from which it had been diverted. He knew that the cost of preparing those meadows had been from £10. to £12. an acre, according to their position as to level, and the natural form of the land. He knew the great value of those perpetual water-meadows which yield two heavy crops in the year, abundance of green food during the summer to horses and cows in the stable and the straw-yard, the coarsest portions of it adding to the mass of manure, though rejected as food. He had seen luxuriant uncut grass also feeding hundreds of cattle and sheep on the land.

When he viewed his own little meadow, and the adjacent river, and perceived that it was only necessary to cut a water-course from the river, and to build little bridges over the two ditches which bounded a lane that intervened between his field and the water, and construct a small sluice and dam at the river side, to admit and stop the supply of water at will, and cut carriage drains and leaking drains in the meadow, which required no catch-work, or any difficult engineering, he could not account for the stupidity which had caused his uncle, and his predecessors on the farm, to neglect the means of manuring the field, which the river would have bountifully afforded. Here was a stream, often muddy, and loaded with the elements of fertility which had been poured into it along its course, allowed to pass onwards, bearing away its rich treasures to the ocean without enriching the land through which it was flowing. Here and there the river paused, as if benevolently waiting for the tenants on its banks to draw copiously from its stores,—then, as it were, indignant at their folly and ingratitude in not accepting the proffered boon, it rushed away in foaming rage, tumbling over a ledge of rocks, and then recovering 'the even tenor of its way,' and, as if ashamed of its precipitancy, looked as placidly and sweetly as if it had been always tranquil, and as if still in expectation that some thirsty land would be induced to draw nourishment from its swollen bosom.

Thus Ned had placed some acres of his land in a state for taking care of themselves. They could now draw seasonable nourishment while it was good for them: they could 'take their fill' during the whole winter and early spring, and then, when the plants beneath the coverlid of water which sheltered them found it was time to awake from their slumber, and throw off that coverlid, the land acquiesced in the propriety of imbibing no more of the insinuating liquid, and thus saved itself from any dropsical affections.

Ned thought that the water-cure which he had seen so beneficially applied on the banks of the Kennet, would have similar success in his own locality.

COTTAGE COOKERY.

BY ESTHER COPLEY—ELEVENTH ARTICLE.

FRUGALITY AND CHEAP COOKERY.

This article will be principally devoted to the interests of those whose income is so limited that they cannot, to any great extent, avail themselves of directions which proceed on the supposition of their being able to lay out some shillings weekly in the purchase of meat. 'Families,' says an esteemed correspondent, who asks for hints adapted to their circumstances,—'families of four or five, or even more, to be maintained on wages varying from 9*s.* to 13*s.* a-week, with rent 1*s.* or 1*s.* 6*d.* a-week, and fuel dear.' There are many families in circumstances even yet more straightened than our correspondent supposes. Most gladly would we devise means, and offer suggestions which might tend, in any degree, to mitigate their privations and increase their comforts. In order to meet the end expressly proposed, some hints on general management will be given before the particular directions about cookery. Bad management often deprives poor people of any thing to cook. Good management provides many a comfortable meal from scanty resources.

There are three questions well worth the serious and practical consideration of all persons who complain of scanty or insufficient income. 1. Is there no superfluous expenditure that may be spared,—

that is, is nothing bought that can be done without? 2. Is there no means of increasing resources, hitherto untried? 3. Is what we have to spend, and what we do spend, laid out to the best possible advantage? A moment's consideration will lead any reasonable person to admit, that it is better to do without superfluities than to be deprived of necessaries; and yet it is no uncommon thing in families insufficiently supplied with needful food for money to be spent on useless luxuries. In a poorly-furnished cottage, not a hundred miles from where I write, little John and Sally, when they ask for more bread or porridge, often get the answer, 'There's no more to give you;' and the poor mother looks as thin as a herring. No wonder; for she has a strong child, more than a year old, dragging at her bosom, and, at the same time, getting from her at least half the contents of her basin or her plate. And yet the husband of this woman—the father of these children, may be seen, at least every evening, with a pipe in his mouth, and fetching, or sending one of the children to fetch, a mug of beer from the public-house. Now this man is not reckoned a bad husband and father: he really loves his wife and children, and is grieved to see them want: neither is he a man given to drink for the sake of drinking, or to frequenting a public-house for the pleasure of doing so. No: he fetches his 'sober pint,' and drinks it at home; and seldom or never exceeds his regular allowance. But if, in these indulgences, there be not a degree of unkind thoughtlessness, there is, at least, a very great mistake in supposing either that he can afford them, or that they are necessary and proper for him. Tobacco, in any form, is not necessary, nutritious, or beneficial: yet it is *expensive*. Sixpence a-week is not considered a great deal to spend upon it: many men spend a shilling or eighteenpence. To say the least, the man just referred to lays out from 3*d*. to 4*d*.: and where the resources of a family are scanty, even a halfpenny a-day is too much to bestow, not upon satisfying a real want, but a sensual and unnatural craving. Then the beer—2*d*. a-day—1*s*. 2*d*. a-week—added to the tobacco, making eighteenpence. Now some people have a notion that beer is necessary for a hard-working man, to strengthen him and enable him to get through his labour. But, on the other hand, there are many men—hard-working men, in every variety of employment, who, having tried both ways, find themselves better able to labour since they left off beer, than when they used to drink it. Not a few, by laying aside these superfluities—by using for their drink pure water, instead of drugged beer, and by leaving off making their throat a smoky chimney and their nose a dust-bin, have in every respect improved their own health, cheerfulness, and enjoyment, and also relieved themselves of having to say to a hungry child, 'There is no food for you.' Eighteenpence a-week spent upon bread, meal, or meat, would be an important addition to the supplies of a poor family Perhaps this may not have been duly thought of by the head of the family here spoken of, or by others in similar circumstances.

There is another matter worth consideration. Without wishing to cry out against a cup of tea for those who can afford it, *can* it properly be afforded where people run short of nourishing food? The ill-fed mother may be seen, every afternoon, with her tea-pot and sugar-basin before her, sometimes with, sometimes without the accompaniment of bread and butter. And one thing more. The Sunday-school teachers cannot help observing, that the children's breath smells of peppermints, or their fingers are sticky with lollipops. Perhaps from 1*d*. to 2*d*. a-day—say 1*s*. a-week—goes for these luxuries: they cannot be called anything better;—tea, sugar, and sweetmeats. What a difference in the family living would even one quart of milk a-day make! Thickened with oatmeal or rice, (which the luxury-pence would supply,) a really good meal might be enjoyed by the family, instead of the tea, which affords no nourishment. Even milk taken with bread alone would do more good than tea, and cost less. Tea is said to be refreshing: so are many other warm infusions. Some of the good resulting from foreign tea might be obtained from herbs of our own growing, such as mint, sage, balm, black-currant leaves, &c., which, in the country at least, might be had for gathering.

Then if the regular income runs short, is it not possible that some method may be devised for increasing it which has hitherto been overlooked? When the

income of a family is mentioned, it is generally confined to the wages of the father, and the number of children is spoken of in the light of an expensive burden, thus—'He only receives —— shillings a-week, and has to maintain a wife and —— children.' This is hardly a fair reckoning. A wife, who is good for anything, is surely worth her keep. When it is taken into account that she cooks the food, cleans the house, makes, mends, and washes the clothes, it may be questioned whether the man alone would not have spent as many of his weekly shillings as are spent on himself and a well-managing wife. Besides, if she be really an industrious, thrifty woman, and has not so numerous and young a family as to engross her whole time and attention, she will be sure to find out some way of turning her hand to the means of adding to the income. The most struggling time for a working family is, when there are two or three little children that require constant attention: when the number of children is higher, the elder ones ought to be able to do something towards the support of the family; at least, they can mind the younger children while the mother is at work. In the country, they can collect fuel for the house, and manure for the garden. Something may be gained by collecting wild produce, either for use or sale;—cowslips, hop-tops, elder-flowers, and berries; blackberries, sloes, whortleberries, nuts, mushrooms, &c. &c., beside gleaning in the corn-fields. In all these things children may be employed. Their natural activity, unless directed to good account, is called mischief,—often costly, destructive, and dangerous mischief. The same activity, applied to useful pursuits, is a present source of pleasure and profit, and a valuable training for future life. Some parents do not think of the possibility of making little children useful, by which both parents and children are losers. Other parents have a clever knack of interesting their children in helping to do what is to be done; in letting them understand that industry is the source of profit, and encouraging them to try their little skill and strength, by giving them a share in the produce. Children who are trained to amuse themselves by weeding in the garden, or by collecting from the fields and hedges what would otherwise be left unappropriated by the human race, and who are indulged with a pie or pudding made with their own fruit; or, if it be sold, are furnished with a pinafore or a pair of shoes, bought with the money it has produced, are really adding to the present income of the family, as well as acquiring permanent habits of industry and thrift. Children well understand the spirit of the saying—that change of work is as good as play; and they may be kindly won to make themselves useful to a much greater degree than many people are aware of. As a single example, which might easily be multiplied, a numerous family, well known to the writer, were constantly supplied with shoes and socks by their own industry. At a very early age their mother taught them to knit. Knitting is an employment in which children may easily be interested. The art is simple; the motion of the fingers lively; and the rapid progress of the work encouraging. It was made a point of emulation and honour to be able to knit themselves a pair of socks. A ball of worsted was sometimes given by the parents as a reward, sometimes gained by going an errand, or rendering some little service in which children are often employed, and oftener still inquired for, when no one can be found willing to earn a penny, or worthy to be trusted. These children were well known in the neighbourhood where they lived as civil, cleanly, honest, and attentive—qualities which every mother may, and ought to cultivate in her children, and which will find their value any day. Often, when they came in from school, a message awaited them: Billy was wanted to carry out some parcels for the shopkeeper opposite, or Betty had been sent for, to nurse the child of the laundress while she went to fetch her linen. Pleased were they to attend to these requirements, which they knew involved the gain of a penny, or more, and perhaps a good dinner besides. Thus at an age when many children are regarded by their parents as a helpless burden, and are roaming about the streets in idleness and mischief, dirt and rags, and picking up all sorts of bad words and bad ways, these children were beginning to taste the sweets of honest independence—of respect for themselves, and reverence for their parents, and laying the foundation of their well-doing as they grew up in life. These facts are mentioned,

as an instance of present income being improved in a way often overlooked by those who complain that their wages are insufficient to meet the wants of their family.

When the cottage manager has satisfied herself that every needless expense has been avoided or broken off, and that no means is left untried that might add a shilling, or even a penny, to the weekly resources of her family, it may be worth while to ascertain, whether what she has to spend on food is laid out to the best advantage, or whether, by any change in her plans of purchasing or cooking, she might get as much nourishing food for elevenpence or tenpence, as she has been used to get for a shilling. This, if it can be managed, would be just as good as adding sixpence or a shilling to her weekly income.

The first thing a good manager has to do, is to ascertain what she really has got, and what she can properly expend on food. She avoids the miserable system on which some families proceed ;—'one day stuffing, and another day starving.' She wishes to have no excess on any day, and something comfortable every day. So, on receiving her weekly allowance, she begins by laying sacredly aside, or immediately paying the rent, and any other regular and unavoidable expense. If a week's portion of those expenses is not spared every week, when rent-day comes round, how can one week be expected to pay the rent of a month or a quarter? There will be no resource from absolute want, but either begging or running in debt, both of which it is her interest, and ought to be her principle, to avoid. Whatever be the weekly allowance for food, its value will be greatly enhanced by laying it out for the supplies of the week forward, instead of paying it for what has been consumed the week back. Those who have never tried, would scarcely credit the difference. But those who have tried say, that they would work day and night for a fortnight, and live upon bread and water, rather than give up the advantage. They say it makes more difference than the keep of one child. Surely it is worth a strenuous effort on the part of those who know the misery of being always behind-hand.

Then, when it is settled how much may be spent on food, it will be found a saving, both of time and money, to purchase the weekly supplies at once, that is, such as will keep, rather than have to run to shop or market every day. But the supplies thus obtained must be dealt out according to the number of days they have to serve. A good knack at this sort of calculation is a valuable quality in a family manager, and tends to make her husband and children both comfortable and contented.

A few remarks will now be made on the several articles which form the main supplies of a working family, and on the most economical methods of preparing them.

Bread comes first. We do not here enter into the details of making bread, which were fully given in the *Family Economist*, Vol. ii., p. 129, but merely mention some experiments that have been satisfactorily tried, when wheat was at a high price, for producing good, wholesome, and nourishing bread from a mixture of less expensive articles.

1. Maize, one gallon; barley, one gallon; wheat-flour, half-a-gallon.

2. Maize, one gallon ; wheat, one gallon. (This is an excellent bread.)

3. One gallon each of oatmeal, barley, and wheat ; or oatmeal and wheat, without barley.

4. Barley-flour, one peck ; wheat-flour, half-a-gallon.

5. One gallon each of barley, rye, and wheat.

6. One gallon each of barley and rye ; two gallons of wheat.

7. Buck-wheat, one gallon ; barley or rye, one gallon ; wheat, two gallons.

8. Potatos, when good and cheap, if wheat is dear, may, with advantage, be used in larger proportions than common : if dry, an equal weight of potatos and wheat ; if the potatos are newly dug, two-thirds potatos to one-third wheat.

9. One-third potatos ; one-third oats, rye, maize, or barley; and one-third wheat.

In adopting any of these mixtures, it is found best to ferment the wheat-flour by itself, and then add it to the other materials, to make up and rise in the usual way. This goes upon the supposition of yeast being employed : whether the bread powder might be suitable, has scarcely been tried.

The relative prices of grain must determine how far these mixtures may be profitable. One remark is applicable to bread

generally, whether bought or home-made, and is of no small importance to the family manager of straitened resources. New bread is as extravagant as it is unwholesome. Just the difference of one loaf in five is made by cutting bread the day it is baked, or cutting it when two days old.

RECIPES,

AND ANSWERS TO INQUIRERS.

Caroline Leyton.—'The best method of *frying soles without any kind of grease?*'—We think our correspondent asks for what is neither practicable nor desirable. What is frying? Dr. Johnson answers, 'to dress food by *roasting* it *in a pan* on the fire.' But suppose an empty pan were set over the fire—what would happen? The pan if earthen would crack; if iron, would become red hot; if tin, the solder would melt. Suppose, instead of an empty pan, some dry food had been put in it. Say a slice of bread, or of *perfectly lean* meat—what then? The food would either catch fire and be consumed, or it would adhere closely to the metal so that it could scarcely be separated, or if this were avoided by incessant turning, it would be found to have received such a disgusting (to use a hard word for lack of an easier) *empyreumatic* flavour as to render it unfit to be eaten. This can only be avoided either by the action of liquid which would do away the characteristic of roasting or cooking by *dry heat;* or by that of some kind of grease either added to the article to be fried, or drawn out from the article itself by the action of heat. The latter is the case with bacon rashers and fat steaks of meat. The most oily fish in common use are sprats, herrings, and eels. The two former sometimes *are* fried, when the cook happens not to have a clear fire for broiling, or when she fancies that frying is rather less trouble: and *she says* they are fried quite dry, without grease. This may be possible; though we cannot help suspecting she puts 'a little morsel'—'just rubs over the inside of the pan with grease, to prevent sticking and burning.' But very thick eels, can scarcely be done through by means of their own fat; and if they can, it is not *without* grease, but because the grease they yield is made to answer the purpose. Soles are not an oily fish, and cannot yield the fat required. But why should frying be preferred? If the object be to get the soles cooked by *dry heat*, and *free from grease*, why not broil them? or toast them in front of the fire, by hanging in a Dutch or American oven, or cheese-toaster? Either of these modes would be found to answer. If it be asked how to fry soles so that they may *not eat greasy*, it is easy to reply. 1st. They may be dipped in batter before frying. The batter for this purpose should be rather stiff.—say one egg and a teacupful of milk to two heaped table-spoonfuls of flour: allow plenty of fat in the pan, and let it boil fast, when the fish, dipped in batter, is put in. If the fish are thick, they had better be turned at least twice in the course of cooking. Serve on a fish-drainer, and very hot. The batter will easily peel off, and the fish be found thoroughly hot and done, yet retaining all its juice. This is a good method for an invalid. It will be observed, however, that the crisp brown outside, which most people relish, is sacrificed.

2. To retain the brown outside, beat up an egg, wash the sole entirely over with it, then strew thickly with coarse Scotch oatmeal or crumbs of bread, fry in fat as usual, taking care that the fat boils fast at the moment of putting in: do one side sufficiently before turning, and turn only once. When done, pour off the fat, lay a common fish-drainer across the top of the pan, and the fish upon it; so let the pan stand for two minutes over the fire at a considerable height, thus any remaining fat will drain off the fish. The end may be further promoted by serving it on a fish napkin.

The query of Caroline puts us in mind of an amusing little incident. A sick lady asked if she might be indulged with a fried sole for her dinner; the doctor replied, that it had better be *fried in water:* to this she made no objection. A fried sole was what she wanted, and she cared not which way it was fried. When the dish was set before her, and the cover removed, she was exceedingly angry and

disappointed at finding herself put off with a sole *boiled in the frying pan!*

Buns.—A very good recipe for buns will be found in the *Family Economist*, vol. ii. p. 133. The following also are good.—*Plain Buns.*—Fresh butter and fine moist sugar each, quarter of-a-pound; cream, two table spoonfuls, or if cream cannot be had, allow one ounce more butter; caraway seeds half-an-ounce; half a small nutmeg grated, or a teaspoonful of ground allspice; milk, half-a-pint; dried flour, two pounds; good bread powder, a table spoonful.

Method of Mixing.—Rub the butter to a cream, or melt it in an oven; if the latter, take care to leave it no longer than just to melt; mix well with it the sugar and spice, and then the cream, rub the bread powder into the dry flour; then the whole together, and finally stir in the cold milk and get into the oven very quickly. The tins to be buttered. The mixture may be merely dropped on the tins in lumps the size of a very small dumpling, space being allowed between, as they will expand as well as rise in baking. Or the mass may be rolled out to rather less than an inch in thickness, and the buns cut out with a teacup or other round; but whichever method is adopted must be done quickly, as it is an object to get them into the oven in as little time as possible after wetting. The oven should be quick, no matter whether a baker's oven, an American oven, or a side oven, provided it affords a good brisk heat: from twelve to fifteen minutes will be required for baking. When nearly done, the buns may be washed over with the yolk of an egg beaten to two table-spoonfuls of milk, and a little loaf sugar strewed over. If yeast is preferred to bread-powder, proceed as above in mixing the sugar, butter, and spice. Then the flour, with the addition of a tea-spoonful of salt. Warm the milk to what would be a pleasant warmth for quick drinking; stir it and the cream to two table-spoonfuls of fresh solid yeast, and strain into a hole made with the finger in the middle of the flour, &c.; sprinkle over it a dust of flour, and let it stand a few minutes in a warm place: then mix the whole well together; cover up the mass, and again set it in a warm place till it has risen considerably, and the oven is ready to receive the tins. The time required for rising is from half-an-hour to an hour. Roll, cut out, and bake as above. In either case, if a little more milk is required to bring the mass to a light paste, it may be added cold if used with bread-powder, and warm if used with yeast.

Richer Buns.—Proceed just in the same manner as above directed, only allow a double quantity of sugar and butter, a tea-spoonful of powdered cinnamon, and clove; half-a-pound of currants, washed very clean, thoroughly dried, and mixed warm with the other enriching ingredients; also one ounce of candied peel, cut small.

Bath Buns.—These are further enriched by the addition of eggs and a larger proportion of sugar and butter. The butter may be half the weight of the flour or an equal weight; sugar, half the weight of butter. To every pound of flour, four eggs and one ounce of caraway seeds. Observe the same order of mixing as above, adding the eggs, finely beaten, last of all: of course, so much less milk must be used as will leave room for the eggs to bring the mass to a proper consistence—that is, much too stiff to pour, but not stiff enough to roll. As Bath buns should have a rough rocky appearance, they are not to be moulded into any particular form, but merely divided into pieces of a suitable size, dropped on the buttered tins, and left to take their own form. Caraway comfits are strewed over the top. A quarter-of-an-hour in a quick oven will bake them.

Fuel.—An association in Dorsetshire for the improvement of the condition of the labouring classes, recommend the following mode of saving the consumption of fuel in poor families:—

Take three or four pounds of chalk in lumps, not above half-a-pound each. Make a clear fire of coals, and place the lumps of chalk in the grate, or on the hearth, just as coal is laid. The chalk becomes red hot, so as to be scarcely distinguishable from burning cinders. A few ashes or small coal thrown lightly on from time to time, will keep up a clear bright fire all day. The same chalk may be used three or four days, when it becomes lime, and excellent as manure for gardens or allotments, or for whitewashing. Half-a-peck of coal used thus with chalk, and properly managed, will give a large capital fire for fourteen or fifteen hours. The saving in coals is about one-half. In

grates the chalk should be kept behind, and coals in front; because chalk will not burn unless it has coal or heat on all sides of it. In selecting the chalk, the whitest and softest should be taken.

SPEAK NO ILL.

Nay speak no ill: a kindly word
Can never leave a sting behind;
And, oh! to breathe each talk we've heard,
Is far beneath a noble mind.
Full oft a better seed is sown,
By choosing thus the kinder plan;
For if but little good be known,
Still let us speak the best we can.

Give me the heart that fain would hide—
Would fain another's faults efface.
How can it pleasure human pride
To prove humanity but base?

No; let us reach a higher mood—
A nobler estimate of man;
Be earnest in the search for good,
And speak of all the best we can.

Then speak no ill—but lenient be
To others' failings as your own
If you're the first a fault to see,
Be not the first to make it known.
For life is but a passing day,
No lip may tell how brief its span;
Then oh! the little time we stay,
Let's speak of all the best we can.

GERMAN SAUSAGES.

Eminent physicians have stated it as a well-known fact, that 'the bodies of animals which are diseased are capable of communicating fatal diseases to the human species;' and Dr. Paris observes, that experience has shown that such animal poison is particularly energetic in those parts that are commonly called offals, in which term are included the intestines. To account for the deleterious changes of which those parts appear to be occasionally susceptible, it is not in the least necessary to suppose that the animal died in a state of disease. We are informed by Dr. Kerner of Wurtemburg, that the smoked sausages, which constitute so favourite a repast in his country, often cause fatal poisonings. In one instance thirty-seven persons died out of seventy-six who had eaten them; and though the most able chemists analysed the meat, no trace of any known poison could be discovered. The following details respecting this remarkable fact are from Professor Graham's work on Chemistry. In Wurtemburg the sausages are prepared from very various materials. Blood, liver, bacon, brains, milk, bread and meal are mixed together with salt and spices; the mixture is then put into bladders or intestines, and after being boiled is smoked. When these sausages are well prepared they may be preserved for months and furnish a nourishing savoury food; but when the spices and salt are deficient, and particularly when they are smoked too late or not sufficiently, they undergo a peculiar kind of putrefaction, which begins at the centre of the sausage. Without any appreciable escape of gas taking place, they become paler in colour, and greasy in those parts which have undergone putrefaction, and they are found to contain prelactic acid or lactate of ammonia, products which are usually found during the putrefaction of animal and vegetable matters. The death which is the consequence of poisoning by putrefied sausages succeeds very lingering and remarkable symptoms. There is a gradual wasting of muscular fibre and of all the constituents of the body similarly composed. Sausages, in the state here described, exercise an action upon the organism, in consequence of the stomach and other parts with which they come in contact, not having the power to arrest their decomposition; and entering the blood in, some way or other; while still possessing their whole power, they impart their peculiar action to the constituents of that fluid. Similar effects have occurred in Paris; and it has been conjectured that animal matter in peculiar states of disease or decomposition may constitute an actual poison, hitherto not understood, and only evinced by casual effects. Sir Benjamin Brodie has remarked that on several occasions he has met with evidence of the acrid and poisonous nature of 'dog's meat,' as sold in the streets of London, which manifested itself by producing ulcerations of a peculiar and distinct character on the hands, accompanied by swellings in the axilla (armpits.)—*Encyclopædia of Domestic Economy.*

SAVINGS' BANKS.

It is to be regretted that the advantages derived from these valuable institutions are not sufficiently known, as well as the superior security they offer over most benefit clubs, where so much is wasted of the members' hard earnings in fines and in drink for the good of the landlord.

It is only the habit of laying by that is wanted; *plenty can do it if they try;* and when so small a sum as one shilling at a time can be deposited, with interest when there are nine, no one can fail to observe how, upon so small a beginning, the ground for future independence is happily laid. If the money idly spent in the drinking customs of clubs and feasts had been so disposed of, how many now would not have to mourn over this waste, which too often injures the health, and lays the foundation of intemperate habits. The writer knows one among many other instances, in which a member of a club, now in the prime of life, deeply laments that he had not commenced putting in a savings' bank, where he would now have a considerable sum. He had previously been a member of two clubs, both of which broke up, and it is not unlikely the one he is now in will come to the same end.

There is no room here to print tables at length; – one instance will suffice. One shilling per week will, in five years, produce £14.; in ten years, £30.; in twenty years, £70.; and it is to be remembered, that the money in a savings' bank is always at the depositor's command, whenever he may require it, and is secured by the government of the country: the smallest sum is equally safe as that of the largest fund-holder;—in a club a man cannot have it; and in too many cases, in the decline of life, the club itself becomes insolvent. 'Old Joe' used to call savings' banks '*the poor man's money nursery garden*, for' said he, 'the seedling sixpences grow into shilling shrubs, and these again throwing out half-crown shoots, become at last golden trees.'

If space would permit, many valuable statements of the benefits of these institutions might be quoted. We must be content with mentioning two or three only. In the first place:—

THEY ARE A GREAT PREVENTATIVE OF CRIME.—It is stated in the report of an inspector of prisons, that in a small town, out of one thousand depositors, chiefly of the working-classes, during a period of five years, only *one* of the depositors had been committed to prison.

THEY ARE CONDUCIVE TO TEMPERANCE.—In a large manufactory in the iron trade the workmen were hopelessly afflicted with a *spark in the throat*, and spent a very large portion of their wages in ardent spirits to quench it. The consequence was, that the employer was frequently annoyed by the suspension of labour to gratify their vitiated taste; but by the use of a little reasoning and kindly feeling towards them, matters soon began to look brighter. They were induced to become members of a Total Abstinence Society, and commenced depositing a portion of their earnings in a savings' bank. One after another was cured of the long-existing malady, and thus enabled to provide his family with comforts to which their former habits had rendered them entire strangers; and they are now, *not only more independent and comfortable, but stand much higher in the estimation of their employer.*

THEY PROMOTE TEMPERANCE.—A manager of a savings' bank was present when an aged labourer applied to receive some portion of his investment. On inquiring how much remained, and on receiving the information, he replied, 'That is all I have to depend upon;' but, from his great age, it would most probably suffice. He spoke of the pleasure he felt at having his own money to live on, instead of being obliged to apply to his parish for relief, adding, 'When my poor wife and I were young, we stayed at home and took care of our money, when many of our neighbours were *rioting at the public-house*, and that is the cause of my having my own money to live on.'

THEY ARE THE MEANS OF PROCURING WEALTH: but most people, it is hoped, will remember THAT is not the purpose for which we live; and the possessor must not forget how unprofitable riches are unless well employed, or in promoting the religious and moral improvement of his less fortunate brethren.

A depositor in a country town, stated to a friend not long since, that he entered

it with only half-a-crown in his pocket, but by great economy and prudence, he was soon enabled to deposit twenty shillings; in seventeen years he had accumulated seventy pounds; with this, and the help of some kind friends who had observed his industry, he entered into a business by which he realized, in ten years, £10,000. He is now living, in possession of a much larger sum.

Listen not to those who prefer spending their earnings in beer-shops, and will tell you that it is of no use putting your money in the savings' bank, because your employer will reduce your wages. This we pronounce to be utterly false. No right-minded master but will prefer employing the man who is sober and industrious, sensible that he who looks carefully after his own little store, will be equally anxious about the interest of his employer. The master who should act otherwise, would soon have no other labourers than the idle, the drunken, and the improvident.

GARDENING AND RURAL AFFAIRS.

CULTURE OF THE VINE IN THE OPEN AIR.

The grape vine is propagated by cuttings or layers. the strongest plants are obtained by the first method, though the latter gives least trouble; both should be formed of the preceding year's growth, and the best season for procuring them is early in spring. If cuttings are chosen, take some of the strongest of the new branches in February, cut them into lengths of two or three joints, taking off the bottom wood close to the bud or eye, set them in a pot of rich soil, and place them in a frame or the warmest part of the garden; with ordinary attention they will form plants fit for removal by the autumn. Layers are made by bending a branch downwards till the newest wood can be fastened in the earth; near its base, with a sharp knife, make an incision about half the thickness of the branch, and draw it upwards for an inch and a-half, cut the end of this tongue close to a joint, press it into the earth to a depth of three inches, and fasten it there with a peg; the same time will be required in rooting as with cuttings. To facilitate the formation of roots, both cuttings and layers must be well supplied with water through the summer, and not more than one new branch allowed to rise on each plant. As a measure of safety, the final transplanting had better be deferred till spring, and as this is the most important operation, great care should be taken that it is well done. The common mode of making a vine border by throwing together an immense mass of animal offal and other putrescent matter, has been proved by the most competent authorities, to be as injurious in its results as it is erroneous in theory; the vine in a state of nature grows chiefly in volcanic districts, and experience has shown that a porous material is highly necessary to the well-doing of its roots, and the consequent perfection of its fruit. In making the bed, therefore, let it be rather elevated, than sunk beneath the level of the surrounding earth, and mix with the staple mould, an equal quantity of broken bricks, old mortar and drift sand, thus we have two proportions of a good bed, the one formed of the natural mould of the place, the other of light porous matters, which will ensure a thorough drainage, and the third part may be well rotted manure; these thoroughly mixed to a depth of eighteen inches, and laid sloping so as to throw off heavy rains, will form a bed in which the plants will luxuriate and be found most productive. As we have to resist a prejudice, it may be well to explain why decomposing animal matter is objectionable: the application of blood, or any other excessively stimulating substances only induces a rank and long-continued growth, which our summers are not sufficiently hot to mature. A large portion of the season's shoots and branches is therefore left at the approach of winter in a soft green state, and is sure to be destroyed by frost, and the remaining part is so long-jointed and unripe, that little fruit is produced in the succeeding year. Supposing the young plants to be stationed in a bed of the kind mentioned: about the middle of February, the mode of training has then to be determined. There are several modes of conducting this part of their management, but those most usual, are known as the long-rod and spur systems; each has its advantages, and it will be consequently best to describe both. If the wall against which the vines are planted will admit of the branches being trained along its base, the plants should be cut back to three joints from the surface of the bed, and in summer two of them should be trained horizontally, right and left from the main stem, removing all others produced: but if it is necessary to carry the stem upwards before the branches can be spread out, only one growth should be allowed. The horizontal branches, at whatever height they are placed, are to be looked upon as the foundation of the fruit-bearing part of the tree, and from them are to be trained upright shoots produced in the second season after planting. In February again, in the third year of the plant's ex-

istence, let the ends of the lateral shoots be shortened according to their strength, cutting weak growths back to four or five joints from their origin, but leaving strong ones at least twice that length, let them be taken from the wall and bent downwards in order to induce the buds nearest the main stem to break into growth first, and gradually raise them till all are progressively excited. It is of much consequence that this is well managed, for if left to itself, the vine will begin to grow at the extremities first, and it is then difficult to get a vigorous growth behind the already active shoots. The new branches should be trained two feet apart in a perpendicular direction, taking extreme care through the summer that their points are not damaged; and to throw as much strength as possible into them, all lateral branchlets that may be produced should be rubbed off as they appear. Three or four new growths on each horizontal branch will be as much as the plant will bear, and the terminal growth on each side must be continued in the same direction, to extend the plant and bear upright branches in the next season. On the approach of winter, or as soon as the leaves are off, partially unnail the branches to allow the air to get at the back of them, that all parts may be equally ripened, and early in spring prune all the new growths to about two-thirds of their length; this will leave the plant with eight upright branches two feet distant from each other, from three to five feet long, if the plant has thriven, and two lateral ones of the same length as extensions of the horizontal limbs. We may this season expect some fruit, which will be produced on the new growths springing from the buds of the perpendicular branches If the 'long-rod' system of pruning is chosen, the whole head of the vine should be unnailed and bent downward to induce the bottom buds of the upright growths to break, after which it may be returned to its place, and the strongest shoot from near the base of each perpendicular be trained straight up the wall, for bearing in the succeeding season; such as are so designed should have the fruit they may produce taken off, and every encouragement given them to grow vigorously, but all others above them are to be checked by pinching off their points, the bearing ones at the joint above the fruit, and the unfruitful at about five or six joints length. Nail each one regularly in its place, and through the summer remove all extraneous or lateral growths; the constant observance of this rule keeps the vine moderately thin of leaves, and gives the fruit a fair chance of ripening. Some protection against birds and wasps will be required, such as gauze bags for each bunch, or a net over the whole. but neither should be applied till just before the fruit is ripe, lest the extra shade so retard the ripening as to spoil the fruit. If the 'spurring system' be adopted in the subsequent pruning, the new shoot from the base of each perpendicular will not be required of its whole length, but it should be stopped, as it is called, by pinching out the point as with the others, and when the vine is again cut, all these new branches are shortened back to two or three eyes, which leaves them about an inch long; the first formed upright growths being retained permanently, and every year afterwards the fruit-bearing and other side branches are pruned in as described, leaving a series of short pieces or spurs on which the new growths of the current year, are to be borne. By the other method, however, all the two years' old wood is taken out, leaving only the new branch proceeding from the bottom of that of the previous year, and thus the wall is kept full of entirely new wood, and the produce though perhaps less in quantity, will always be of superior quality. The after-management of the vine will be only a repetition of what has been described, and the border will need no more attention than an annual coat of half-rotten manure lightly forked in at the beginning of winter, and from its surface moderate crops of the smaller vegetables may be taken throughout the year, endeavouring as far as practicable to have it clear in spring when the vines begin to grow, and in autumn when the leaves are falling, that the roots may have all the benefit of the sun at those two seasons.

The best vines for the open air are the following: White Malvasia, excellent; Esperione, black, very good; Miller's Burgundy, black; Pitmaston, White Cluster, very good; Royal Muscadine, white, fine rich flavour; Sweet-water, does not set well; Black Hamburgh, fine in warm summers, but cannot be depended on to ripen.

To Destroy the Muscle-Scale and American Blight on Apple Trees.—Scrape the stem and branches where the insects abound with a piece of hard wood or a blunt knife; then brush over the whole, and into every crevice spirits of tar, tobacco-water mixed with sulphur to the consistence of paint, or what is cheaper and equally effective, hot lime-wash; the latter will have to be renewed two or three times at intervals of a month.

Plant Protectors.—The only thoroughly effective means of protecting choice plants, seedlings or other small growers, from snails, slugs or other creeping vermin, is to surround them with a rim about three or four inches wide, of tin, zinc, wood or any other suitable material: keep the outside of this rim coated with soft tar, press it firmly into the ground, or the depredators get under it, over it they never can. This beats galvanism.

VARIETIES.

PEACE AND WAR.—Peace is that beautiful essence which flows undisturbedly from the pure and generous heart, and which so religiously says, 'Though my neighbour offend me seventy times seven—yet do I freely forgive him.' But war is a barbarous game of merchandize-murder which says, 'My neighbour has slightly offended me therefore must I inflict upon him the punishment of Cain?' —*Mander May.*

A WORD TO THE OVER-SENSITIVE. — A. strikes me with a sword and inflicts a wound. Suppose, instead of binding up the wound, I am showing it to everybody: and after it has been bound up, I am taking off the bandage continually, and examining the depth of the wound, and making it fester till my limb becomes greatly inflamed, and my general system is materially affected — is there a person who would not call me a fool? Now such a fool is he who, by dwelling upon little injuries and insults, or provocations, causes them to agitate or inflame the mind. How much better were it to put a bandage over the wound, and never look at it again.—*Sharp's Essays.*

SECRET OF COMFORT.—Though sometimes small evils, like invisible insects, inflict pain, and a single hair may stop a vast machine, yet the chief secret of comfort lies in not suffering trifles to vex one, and in prudently cultivating an undergrowth of small pleasures, since very few great ones, alas! are let on long leases.—*Ibid.*

IDLENESS.—Beware of idleness: the listless idleness that lounges and reads without the severity of study, the active idleness for ever busy about matters neither very difficult nor very valuable.

PEACE OF MIND.—Though peace of mind does not constitute happiness, happiness, cannot exist without it, our serenity being the result of our own exertions, while our happiness is dependent on others: hence the reason why it is so rare; for, on how few can we count! Our wisdom, therefore, is best shown in cultivating all that leads to the preservation of this negative blessing, which, while we possess it, will prevent us from ever becoming wholly wretched.

UTILITY OF NETTLES.—It is a singular fact that steel dipped in the juice of the nettle becomes flexible. Dr Thornton, who has made the medicinal properties of our wild plants his peculiar study, states, that lint steeped in nettle-juice, and put up the nostril, has been known to stay the bleeding of the nose when all other remedies have failed; and adds, that fourteen or fifteen seeds ground into powder, and taken daily, will cure the swelling in the neck, known by the name of goitre, without in any way injuring the general habit.—*Medical Times.*

SOCIETY OF ARTS' PRIZES.—This society, (John Street, Adelphi, London,) has just issued their prize list for 1850. Among the prizes offered are,—for the best cement for uniting glass; for calico prints, mousseline-de-laine, furniture chintz, carpets, and laces; for ornamental basket-work, drawings and models of the human figure, and of flowers; for a model of a table tea-kettle,—besides many others in chemistry, agriculture, and mechanics. Printed lists are to be had on application.

DECEIVERS.—We are born to deceive or be deceived. In one of those classes we must be numbered; but our self-respect is dependent on our selection. The practice of deception generally secures its own punishments; for callous indeed must be that mind which is insensible of ignominy. But he who has been duped is conscious, even in the very moment that he detects the imposition, of his proud superiority to one who can stoop to the adoption of so foul and sorry a course. The really good and high-minded, therefore, are seldom provoked by the discovery of deception; though the cunning and artful resent it as a humiliating triumph obtained over them in their own vocations

REAL WORK.—It is better to accomplish perfectly a very small amount of work than to half do ten times as much.

GRAVE-YARDS IN LONDON.—The various grave-yards in London, and the adjacent cemeteries, comprise 478 acres. It is computed that 50,000 bodies are buried annually, and that a layer of corpses is completely decayed in seven years.

PROMISE AND PERFORMANCE.—I had rather do and not promise, than promise and not do. —*Warwicke.*

LETTERS.—In the year 1848, 329,000,000 of chargeable letters passed through the post office.

OMNIBUSES IN LONDON.—The total number of omnibuses now plying for hire in the metropolis, is 3,000, paying duty. including mileage, averaging £9. per month each, or £324,000. per annum. The number of conductors and drivers is about 7,000, who pay annually £1,750. for their licenses.—*Builder.*

VALUE OF LABOUR.—The music of the harp may be better spared in a commonwealth, than the noise of a hammer. Indeed I have heard, that there is a house on London Bridge built entirely of wood, without any mixture of iron nails therein, therefore commonly called NONE-SUCH, for the rarity of the structure thereof: but if any could show a civilized state extant on earth, without the use of smiths therein, it deserveth the name of NONE-SUCH indeed.—*Fuller.*

EASY WORK,—The easiest of all work is self-deception.

HONESTY IS THE BEST POLICY.

This is one of those good old sayings made familiar to us by long custom; it enters into our ordinary conversation, and in time comes to be used by whole populations. Some use it with a desire to act upon it; others, because it is a convenient phrase with which to make a show of morality; and a third party, the most numerous of all, repeat the words without any very clear notion of what they mean.

Honesty is the best Policy. How aptly the adage presents itself to all who wish to utter it; it is quite as easy as another also very much used—Bread is the staff of life. There are thousands of people who know very well that bread satisfies hunger, without knowing any thing of the wonderful process by which digestion converts the bread into living blood for the support and growth of the body; but if ever they come to know this the more truth do they find in the words. The phrase is one which will bear looking into; and so also will that other one, Honesty is the best Policy; and we may reasonably hope that a little examination of it will give us not only a clearer insight into its truth and wisdom, but perhaps assist us in endeavours to manifest the spirit of the words in conduct and action. The question is therefore:—Why is Honesty the best Policy? and here let the reader before going farther, lay down the book and try to think out for himself or herself as many reasons why as he or she is able. After so doing, he may come back to the page again and compare his reasons with those which he will find here set down.

The first reason why is an economical one. In this country at the present time and for many years past, the getting of a living has been a very hard struggle for most persons, so hard indeed that great numbers are ready to give up in despair thinking it useless to strive longer. While such is the case, it becomes a duty with every one to make use of all the means in his power to improve his condition or render it more comfortable. Taking it easy in morals or business is not found to answer, and one of the best means for doing better is Honesty. An honest labourer, workman, or mechanic has great advantages over the dishonest. The honest one will generally find that he is kept in steady work, while others of less worthy character are dismissed. In slack times a master does not begin by turning off his best hands, he weeds out the loose characters, those who are not to be depended on. And what is there that so much encourages a workman as the certainty of constant employment? what a load of anxiety and torment he escapes from by trustworthiness! And although an honest man is not exempt from misfortune any more than others, yet in all main points he is as safe as a man can well be. A trustworthy servant is an invaluable acquisition for a master; he is an example to others, and by the force of this, often aids in keeping his fellow-workmen to their duty. Silent example sometimes does more good than noisy argument. A man who does his duty conscientiously in the workshop, will be respected at his lodgings, or beloved in his family. He does not carry home odds and ends of wood, scraps of leather, bits of metal, or sheets of paper, and comfort himself with the hope that such things will never be missed, or that taking a thing home is not stealing. How much of envy on the one part and suspicion on the other, which now, in too many instances, prevail between masters and workmen would be abated, if both parties

would conscientiously discharge their duty to the best of their ability. HONESTY IS THE BEST POLICY.

A second reason why the practice of honesty is best, is, that it promotes freedom of the mind and relieves it of mean cares. A truly honest man if not oppressed by unfortunate circumstances, is quite at ease in his mind, he may, it is true, have made mistakes in his life, but he is not tormented with recollections of wilful errors. His word can be relied on, for when he speaks it is in a straight-forward style, and without exaggeration. Such a man is never at a loss ; if you question him to-day on what he said yesterday, he answers without hesitation, without stopping to consider whether what he says on Thursday will contradict what he said on Wednesday. Honesty is always honesty ; and the truth of one day will always adjust itself to the truth of another. It is only when we try to fit dishonesty to dishonesty, or lie to lie, that we cannot make a good match—that we cannot bear cross-examination. Honest action and honest speech must naturally go together, he who acts right will be pretty certain to speak right. Any thing *done* with intent to deceive, is as dishonest, is as much a lie as any thing deceitfully *spoken*. Shakespeare tells us of a character who was 'honest in nothing, but his clothes,' which is very far from that HONESTY which IS THE BEST POLICY.

A third reason why, is, that honesty enables a man to act out his entire nature, it leaves him open to all sorts of improving influences. The poet said, 'An honest man's the noblest work of God ;' and truly may it be affirmed that a dishonest man renounces his nobility, whether of nature or of rank. No matter what a man's title or station may be, if he be dishonest he is not noble. The true-hearted Scottish peasant Burns wrote

> 'The rank is but the guinea's stamp,
> The man's the gold for a' that.'

The honest man will be prepared to respect the rights of others, to believe that he does not live for himself alone, but as one who must give and take, bear and forbear, recognising the great fact, that if he has claims on his fellow-men they also have claims on him. Dishonesty not only injures the individual, but it injures his neighbours ; it is a wrong done to society and to a man's own conscience. It would be difficult to estimate the misery, sorrow, and suffering which dishonesty has inflicted on the world.

Two points suggest themselves for consideration : let those of mature age remember that 'no legacy is so rich as honesty,' and let the young and the aspiring ever bear in mind that HONESTY IS THE BEST POLICY.

THE SELF-ADVANCEMENT OF EDWARD BLAKE.

BY MARTIN DOYLE—PART III.

BUT Ned on reconsideration perceived that he had judged too hastily respecting the advantages of irrigating the little field in the complete manner he had on the first impulse, designed. When he began to count the cost of every thing necessary to be done, it occurred to him that the extent of land was too limited, to repay by irrigation the outlay which would be requisite for rendering it a water meadow. He pondered over all the *pros* and the *cons*. It would be necessary to construct a sluice-gate at the river side, and two small bridges

or *gullies*, which an intervening land rendered indispensable. The sluice should be made of the best heart oak; there should be carpenters and masons employed, and lime-stone and mortar provided, these matters would cost a smart penny; then there was the cost of cutting a water-course from the sluice to the field, and from the field again to the river below the little waterfall, and of digging the greater part of the field, which was a dead flat, in order to form it into beds eighteen feet wide, and with such a fall at the sides, as would allow the water from the *carriages* or mains to trickle freely from the crowns of the beds into the furrow or leakage drains, a point on which the effectiveness of irrigation chiefly depends. 'Common labour, indeed, wont be very cheap,' thought he to himself; 'but the wood-work, and the mason-work, and other materials would be expensive—and supposing I could spend money for this job, what should I gain on little more than *three* acres?' He estimated the whole cost at £30., and the increased return from the field at £3. per acre; therefore, he would not be repaid for his outlay for some years. Now though the investment of capital with such return would be very beneficial to any person with money at command, it would not have suited Ned's circumstances, for if he had expended his small capital on this work, he must have lost the advantages which he expected to derive from *high farming* on his arable land. In short, he could not effect both objects, and therefore for the present he abandoned the notion of establishing a water-meadow, although from the porous nature of the soil, the field in question was especially adapted to irrigation. 'If, indeed,' said Ned, '*more* of my land could be turned into water-meadow, the items of expenditure and profit would be very different; for since the same sluice, and bridges, and principal water-course would answer equally for a much larger lot of land, the average expense per acre would be rendered light, by increasing the area of watered land, and soon repaid by the increased produce.'

It is said that Providence helps those who are disposed to help themselves. This proved true in Blake's case; for while he was pondering over the matter—as he leaned for a little rest on his spade—Sir William B——, who had recently arrived at his Irish residence, rode to Ned's farm, where he was pleased at finding the owner and his wife so comfortably circumstanced, and their house and land in such an improved condition. In the course of conversation, Sir William mentioned that Tim Gallagher had thrown upon his hands $8\frac{1}{2}$ acres of land which adjoined Blake's $3\frac{1}{2}$ acres of pasture land, and on the same level too—Tim owing three years' rent, at £1. an acre, which that unthrifty tenant had been unable to pay. 'Well, sir,' said Ned, 'I think it would be worth to you more than double the old rent, if you would make it a water-meadow.' 'Ah!' observed the baronet, 'that is not a bad idea.' Ned fairly related his own contemplations on the same subject, and the reasons which prevented him from expending capital, under his present circumstances, on the irrigation of his own field; but clearly demonstrating, by the facts within his knowledge acquired on the banks of the Kennet, that if his allotment were *large* enough to admit of the outlay for a sluice and gullies, he would gain considerably by irrigating it. 'Sir,' said he, 'you know well that I could mow that little field twice in the year, and that the after-grass would fatten many sheep, or that I could feed it off both in the spring and autumn with sheep, and have one or two heavy cuttings for soiling cattle and for hay: but I can't afford the outlay.'

Sir William augured much future advancement in this young man's condition, from his skilfulness and prudence in not speculating beyond his full means, and took pleasure in the reflection that he himself had been the person to afford Ned the opportunities of acquiring the agricultural skill which was now producing its fruits.

When Sir William examined the elevation of the little river near him, and recalled to his mind the expensive steam-engine which Lord Lonsdale has erected on the banks of the Thames, for raising its waters to lands on a higher level, and the long line of aqueduct, of costly masonry, to convey the rich stream,—and all this with the probabilities of much gain,—and contrasted the apathy or dulness of proprietors and tenant-farmers, which has allowed so many noble rivers in Ireland to pass uselessly by fields over which their streams could be diffused at will, he was fully resolved not

to let any occasion pass by of doing a service to Ned, who evinced such quickness of perception, and prudential economy. And he very justly considered, too, that the young man, as a farmer *on his own account*, would be a more effective model than any farming which he himself could exhibit through the superintendence of a bailiff;—Paddy's notion being, that all gentlemen farmers are only *amusing* themselves, and that their experiments and systems, however perfect, are sources of loss, and therefore to be repudiated as foolish and costly amusements.

The conference between Sir William and Ned ended in the thankful acceptance, by the latter, of the baronet's proposal, that he should undertake the engineering and the superintendence of a body of labourers, (who were to be paid weekly by Sir William,) to form Gallagher's lot of ground into a water-meadow, with the understanding that Ned should rent that lot at £2. an acre, for twenty-one years, Sir William undertaking, also, to execute, at his own cost, the mason or wood-work of bridges, and to construct a sluice six feet wide, with two dams of three feet each. Thus Ned was only to bear the diminished expense of ridging his own field, and cutting in it the water-courses, &c.; and his good patron intimated, that if he wanted money for that purpose, he should have it, interest free, and payable by easy instalments. Thus Ned was to become, in a short time, the occupier of twelve acres altogether, of water-meadow prepared in the most perfect manner, paying a moderate rent for 8½ acres, enjoying the remainder free, and without any future disbursements whatever on the irrigated land, except about four shillings an acre for regulating the flow and withdrawal of the water, and labourers' wages for mowing and sowing hay.

That was good advice which Dumbidikes gave to his son:—'Jock, when ye hae nothing else to do, ye may be aye sticking in a tree; it will be growing, Jock, when ye are sleeping.'

Now the principle contained in this counsel is as applicable to irrigation as to planting trees; for while the farmer who practises irrigation is sleeping, the stream which he has conducted to his meadow will be flowing over and fertilizing it—benefiting his property. And the freezing air which makes him creep under his blankets, throws at the same time a coverlid of ice over the tender blades of grass in the watered meadow, which keeps them in a comfortable temperature, in which they live and vegetate, ready to spring up with accelerated growth on their green carpet, when the white one disappears, showing that the unprotected blades have faded 'in the seared yellow leaf,' and died.

This matter being settled so advantageously for the young farmer, he had now a great deal of occupation on his hands. The water-meadow work and the tillage labours were to be proceeded with simultaneously, and many men were to be employed on the baronet's account. This, indeed, was a very pleasing part of the case, as there were many poor fellows anxious for work, yet standing idle in the market-place, because no man hired them; and the rumour (such reports, whether for good or evil, spread rapidly) that Ned had obtained a good job of work for the poor people from Sir William B——, excited popularity in his favour sufficient to compensate for any jealousy that might have been raised by his obtaining Tim Gallagher's land, even though it had been abandoned, after a profitless tenure, by that individual himself.

But it is not my intention to go, step by step, through all my young farmer's operations. The principal points only shall be recorded.

It may be recollected that some barley was dibbled in the first year. Well, it succeeded to the disappointment of all the prophets of its failure;—Ned, however, informed those who saw a much greater yield from it than they had expected, that such thin sowing is only to be recommended on land in high condition. He had, therefore, some disposable corn, seed (of the chevalier sort) for the ensuing year, and straw for litter. The vetches had done good service in supporting the cows, calf, and pigs, and when they were entirely consumed, a crop of Swedish turnips succeeded, by the aid of the ashes of weeds, burnt clay, and bone-dust. Though Ned had usually seen turnips in broadcast culture in Berkshire, he knew that drilling was preferred in other parts of England, and generally in Scotland; and he determined to pursue a method which insured a greater regularity of crop,

and greater facilities for hoeing, and economy of seed and manure. Though turnip-seed is very cheap, said he, why should it be sown to be hoed away when it grows? and so strictly economical was he on this point, that instead of sowing the seed all along the drill, he merely dropped it from a bottle through a quill, at the regular distances.

He worked alongside of his labourers; therefore the working of his land was completely executed, at a depth too which no two-horse plough could have effected; and as the perennial weeds were buried deeply, the land soon became free from them. One good digging or forking sufficed in general; the hoe executed the succeeding labours, and easily from the previous thorough pulverisation of the soil. Ned introduced some beans in his second year after a corn crop quite in the Berkshire mode. In some particulars he improved upon it. He first hoed off the stubbles and wheeled them into the pig-yard; then he procured a neighbour's horse and cart for a day and put out a sufficiency of rotten dung, which was evenly spread and then dug into the soil so deeply and well that none of it remained on the surface, losing its most valuable elements as is so commonly the case after plough-work. The clods being perfectly broken and levelled by the spade, no harrow was needed. Furrows at equal distances having been neatly cleared to prevent any lodgment of water, winter horse-beans were dibbled in rows sixteen feet apart, with fourteen inches between the holes,—a work which required little labour. Ned himself hoed the beans twice, no difficult operation, as he could easily hoe an acre in one day. After the second hoeing, he scattered rape seed over the ground and covered it with a garden rake. The crop of beans was admirable, and when they were cut and removed, the rape plants were fed off by a few sheep whose droppings assisted in manuring the ground, in return for the nutriment which the rape plants had drawn from it. Ned had made some hurdles in the preceding winter for folding his sheep occasionally, for he had an objection to the cruel system of neck or leg-yoking them together, and tethering them besides. Perhaps he had read poor Mailie's dying words, as she lay in a ditch entangled in her tether.

> 'Tell him if e'er again he keep
> As muckle gear as keep a sheep,
> O bid him never tie them mair,
> Wi' wicked strings o' hemp or hair!
> But ca' them out to park or hill
> An' let them wander at their will,
> So may his flock increase and grow
> To scores o' lambs an' packs o' woo'.

When the rape plants disappeared, the ground was well dug for wheat which was dibbled at the same distances observed in the bean planting. That crop was also hoed twice. Never had there been before seen such an ear of wheat, and such a yield in the parish of D——.

Trifolium incarnatum sown on the clean stubble land followed, and was consumed in the following spring, in sufficient time to admit of sowing a crop of turnips. The root crops, potatos, parsnips, Altringham carrots, cattle beet, which were in sufficient proportions, were generally very good; the deep and thorough loosening of the soil, (with draining wherever it was required,) and abundant manuring which Ned contrived to supply after two or three years, with but little more aid from guano or bone-dust, occasioned its productiveness.

How the cows and dairy prospered, how the pigs and poultry multiplied, under the special management of Mrs. Blake, must be matter for a future chapter.

ADVICE TO ALL TEE-TOTALERS.

1. Do not, on any account, violate your pledge.
2. Try to understand the principles of tee-totalism.
3. Choose the virtuous as your constant companions.
4. Make restitution for the injuries you have done.
5. Contract no debts under the cloak of tee-totalism.
6. Never report your brethren's faults in their absence.
7. Restore those who fall in the spirit of meekness.
8. Beware of pride and a contentious spirit.

9. Abhor selfishness, and consider the poor.

10. Exercise patience towards the poor drunkard.

11. Visit at least seven drunkards every week.

12. Convince by persuasion instead of violence.

13. Save the rising generation from intemperance.

14. You ought to redeem all your misspent time.

15. Give up the practices of smoking and snuffing.

16. Attend the meetings as often as possible.

17. In your addresses avoid all personal attacks.

18. Do not introduce politics, for they are unprofitable.

19. Religious sectarianism should also be avoided.

20. Deal not in false and exaggerated statements.

21. Live, and train your children in the fear of God.

22. Increase in charity, prudence, and piety. *Livesey.*

A SECOND CHAPTER ON BUILDING SOCIETIES.

It will be in the recollection of most of our readers, that a few months since we published some information on the subject of Building Societies. (*Fam. Econ.*, Vol. i. p. 101.) Numerous communications were sent to us in consequence, containing various inquiries and requests for additional particulars, to which, at that time, only general replies could be given, for want of some comprehensive view of the whole question. These details, are now supplied in a work lately published by Mr. Arthur Scratchley, entitled, 'A Treatise on Benefit Building Societies,' &c., in which their defects and advantages are fully explained; and we shall now endeavour to furnish such an abstract of its contents as may prove useful to readers generally. Those persons, however, who are much interested in Building Societies, or who are concerned in their management, will do well to consult the book itself.

It appears that the first Building Society was set on foot at Kirkcudbright, in Scotland, so far back as 1815; others were shortly afterwards started in the same country, and in the north of England. They increased so rapidly that, at the end of 1848, there were more than 2,000 registered Building Societies. 'Of these,' Mr. Scratchley observes, 'there is evidence to show that from 800 to 900 are yet in existence, the total income of which is calculated at not less than £2,300,000. a-year.'

So large an increase is a proof that the working-classes, as well as others, have, to some extent, awoke to their true interests; they have found out, that trust in their own exertions and foresight is their only real means of prosperity, and a far preferable resource to trusting to public generosity or charity. But unfortunately, people whose time is occupied in handiwork, which keeps them busy from morning till night, are liable to be deceived in matters a little out of their ordinary track, and many of them have been led to invest their money in schemes which have looked promising, but failed in performing. It is to be feared that numbers who could ill afford a loss have been sufferers in this way, when we find, as above indicated, that more than half of the societies have disappeared.

The act passed for the encouragement and protection of Building Societies, in 1836, permitted a higher rate of interest than had previously been allowed, and led to mischief, by exciting a spirit of speculation. Even when fraud was not intended, societies were started by persons so ignorant of arithmetic, that profit was out of the question with their blundering calculations; and yet 'no Building Society has ever been started, however ridiculous in its pretensions, which has not speedily succeeded in drawing together a number of shareholders. It is thus that the legitimate object of Building Societies has been perverted. In order to render them popular and attractive, the projectors, in many cases, have not contented themselves with promising to the poor but industrious man the privilege of becoming the possessor of a house by easy means, but have unhappily infused into him an eager desire to obtain

a disproportionate amount of gain in his purchase. Hence it comes to pass, that instead of his feeling a lively satisfaction that he is able to get possession of his house by the payment, to a Building Society, of very little more than the amount of his rent during a reasonable number of years, he is taught to believe, that the important advantage he covets can be obtained for him by means, and within a period of time, which common sense ought to have suggested as impossible.'

The author then goes on to show, that a proper knowledge of the calculation of interest is one of the chief points to be attended to in establishing any description of benefit society, and explains the difference between simple and compound interest. The question of simple interest is thus stated:—'Suppose £100. were borrowed for five years, at the annual rate of three per cent. simple interest, which is to be paid at the end of the fifth year with the loan; then the amount payable at that time would be £100. and five times £3., or altogether £115.'

But if, instead of this, the interest were to be paid at short intervals,—say half-yearly, it is clear that the receiver will be able to invest these half-yearly sums, and so obtain interest upon them also. This is what is meant by compound interest; and 'the way in which it accumulates will be seen from the following example:—Suppose A lends B £1000. for fourteen years, at five per cent. interest, payable annually, and at the end of each year. At the end of the first year, A receives from B £50. for interest, which he re-invests by a further loan to B, or to some other party. The amount altogether thus lent is then £1050. At the end of the second year, A receives £52. 10*s.*, as interest at five per cent., which he again lends out immediately, making his total investment £1,102. 10*s.* At the end of the third year, the interest received upon this loan of £1,102. 10*s.* is £55. 2*s.* 6*d.*, which, being also lent out, causes the total sum invested to be £1,157. 12*s.* 6*d.*, on which, at the end of the fourth year, A again receives interest; and so on, until the end of the period, the advantage derived from these repetitions of investment increasing every year. Thus the lender, in three years, clears £157. 12*s.* 6*d.*, in the shape of interest, on the £1000. originally lent, which is £7. 12*s.* 6*d.* more than he would have obtained by simple interest.'

One very important fact requires here to be diligently borne in mind, because, on proper attention to it, success or non-success depends. It is, that the oftener interest is payable, the more profit is made. For instance;—'Suppose £1000. were lent, for one year, at five per cent. rate of interest, payable *half-yearly*. At the end of six months the lender receives half a year's interest, or £25. This, if invested immediately, will itself produce, in six months, 12*s.* 6*d.* interest; so that the lender, at the end of the year, will have made £50. 12*s.* 6*d.*, instead of the £50. he would have received had the interest been only payable yearly.' The advantage is still greater in proportion as the interest is paid quarterly, weekly, or monthly, always taking for granted that no time is lost in re-investing it. Three per cent., paid half-yearly, produces £3. 0*s.* 5½*d.*; quarterly, £3. 0*s.* 8½*d.*; monthly, £3. 0*s.* 10*d.*; and so on of higher rates.

A great deal of ignorance and uncertainty prevails with respect to annuities, which the book before us clears up. Annuities have a certain value at the time when they are first purchased, and, unless calculated according to this value, loss must ensue. When the rate of interest is duly fixed, 'the amount of an annuity is exactly equal to the amount to which the present value of the annuity would accumulate, if itself invested and improved, at the same interest, until the end of the given number of years. Supposing two men each to undertake to pay £8. 8*s.*, at the end of each year, to a society for ten years, and that one desired to receive, in return, the present value of his ten years' payments, while the other determined to wait for his share until the end of the time, they would both be fairly treated in respect of their subscriptions to the society, if the one received £59. at once, and the other £116. 1*s.* 2*d.* at the termination of the annual payments.'

Furthermore—'The first point to be thought of, when an accumulation is promised for an annuity paid, is,—Can the necessary rate of interest be obtained? Can every instalment of the annuity be immediately and continually invested throughout the whole time of the rate required? Thus, for example;—£6. a-year

will amount to £82. 18s. nearly in ten years, at seven per cent. rate of interest. But in order that £6. a-year may amount to £120., the rate of interest required is 14½ per cent. Again: that £6. a-year may amount to £140., or £3. a-year to £70., in the same time, the rate of interest required is nearly eighteen per cent.'

Here Mr. Scratchley gives a very useful rule:—'For all rates of interest not exceeding ten per cent., the number of years in which a single sum will become double in amount by the accumulation of compound interest, may be found by dividing seventy by the rate of interest per cent., and taking that whole number which is *nearest* to the quotient obtained.' Thus—

per cent.			becomes double in
2	$\frac{70}{2}$	=	35 years
3	$\frac{70}{3}$	=	$23\frac{1}{3}$ „
5	$\frac{70}{5}$	=	14 „
10	$\frac{70}{10}$	=	7 „

and in the same way for any amount between two per cent. and ten. This table clearly shows the folly of attempting to fix the termination of a Building Society at an earlier period than that in which the promised benefits can naturally have accumulated.

Having thus laid down the true principles on which calculations are to be made, the author proceeds to explain, that it would be to the advantage of all parties concerned, if Building Societies, instead of being *temporary*, were *permanent;* that is, if instead of lasting only ten, twelve, or fourteen years, they were kept going without limit, as is the case with insurance and other societies. He exposes the defects existing in many Building Societies, and the errors which have led their originators to promise more than they ever can perform, and shows the mode in which they become subject to loss. The chief of these are in the difference of interest between what the societies pay and what they realize; in the difficulty of investing *immediately* the amount received as monthly subscriptions; in the loss from expense of management; from occasional bad investments; and in the miscalculation of premiums. On this latter point we read,—'It is indeed a fact, which common sense would suggest, that it is almost impossible to find members who will care to borrow, when the first five or six years of any society's expected duration have elapsed. The monthly re-payments upon a loan, which is to be only for a short period, become too large to suit the means of the industrious classes, who are usually the shareholders of a Building Society; and this difficulty increases to an insurmountable degree in the last years of the proposed term of its existence. For although a man who borrowed £300. for fourteen years, in order to purchase a house, might contrive, with comparative ease, to pay £30. a-year, in addition to the taxes and ground-rent, yet he might be unable to pay £59. 18s. a-year, if the loan were merely for six years, or £85. 12s. 6d. a-year, if it were only for four years; and similarly for other periods.'

It is admitted, that some Building Societies are established on such principles as will be productive of benefit; but too many are mere shams; and we consider that ignorance on the part of those who undertake to form a society, is worse than inexcusable. It would be well for those about to invest their money in such schemes to seek out always for the safe and solid; not to be captivated by clap-trap. If permanent societies are best, then they ought to be encouraged. Mr. Scratchley says they are 'entirely free from most of the objections peculiar to terminating societies:—

'1st. The difficulty of finding borrowers, at any time in the course of the existence of a society, is removed.

'2ndly. New members may enter in any month, without paying up any arrears or increase of entrance-fee. Hence the scope of the society's action is considerably augmented, and the power, resulting from mutual association, of doing good is greatly extended, as the number of shareholders increases year by year, and even month by month, instead of diminishing.

'3rdly. The initial and annual expenses can be more equitably divided, and spread over a larger number of members.

'4thly. A member may, under reasonable restrictions, withdraw his subscriptions, or effect the redemption of a mortgage, without the delay or expense he would experience in a terminating society.

'5thly. The duration of members' subscriptions can be fixed with greater certainty.'

Mr. Scratchley gives a set of 'Rules for

a permanent benefit Building and Investment Society.' These add to the value and utility of his work, which may be consulted as a manual or text-book on the general subject. He wisely recommends that the society-meetings should never be held at a tavern or public-house ; and we join in directing attention to this point, since economy and morality both depend on it. The various uses to which Building Societies may be applied appear to us very suitable for quotation. They are :—

'1st. *Provisions for old age* may be secured, payable at the end of any number of years, by a person joining the society as an invester.

'2nd. Houses can be *purchased*, instead of being hired, by an inconsiderable increase of annual outlay.

'3rd. Heads of large commercial establishments and ministers of parishes may, by affording encouragement, advice, and protection in the formation of such societies, secure more benefit for their dependents and the humbler members of their charge, than can be obtained by any effort, however extensive, of private charity.

'4th. Leaseholders, such as farmers or others, desirous of providing for the *fine* or renewal of their leases, (if for terms certain,) can do so by joining a society as investers, and subscribing for such number of shares (to be received in full at the required time) as will meet the amount desired. This obviously would be, to many, an easy mode of providing for what is now often felt to be a difficult and onerous charge.

'5th. The premiums, or fees, for placing boys as apprentices, or articled clerks to solicitors, engineers, &c., can be obtained in a similar way.

'6th. *Marriage and family endowments* of all kinds can be secured.

'7th. Benevolent institutions and religious societies can borrow funds for the erection of churches, almshouses, schools, chapels, &c., or for the immediate paying off of any debts from such institutions, and the amount borrowed can subsequently be re-paid by charitable contributions periodically collected.'

No person should join a Building Society with extravagant expectations ; and on this point a cautionary paragraph presents itself, with which we bring our notice to a close :—'It should be clearly understood by the working-classes, that, in saving a little money, they are providing against misfortune and the exigencies of life, and by investing those savings, they merely increase the means for that purpose ; and not for one moment should they labour under the delusion that, by joining this or that Building Society, their fortunes would be made without trouble, for such hopes cannot be realized, and they give rise to ideas which, in leading them beyond their sphere, incapacitate them for the exertion necessary to maintain them in it, and induce misery and disappointment in the end.'

THE WIFE TO HER HUSBAND.

"You took me William, when a girl, unto your home and heart,
To bear in all your after fate, a fond and faithful part;
And tell me, have I ever tried that duty to forego,
Or pined there was not joy for me when you were sunk in woe?
No, I would rather share *your* tear than any other's glee,
For though you're nothing to the world, you're *all the world to me.*
You make a palace of my shed, this rough-hewn bench a throne,
There's sunlight for me in your smiles, and music in your tone.
I look upon you when you sleep—my eyes with tears grow dim,
I cry, 'Oh Parent of the poor! look down from heaven on him;
Behold him toil from day to day, exhausting strength and soul;
Oh! look with mercy on him Lord, for thou can'st make him whole;'
And when at last relieving sleep has on my eyelids smiled,
How oft are they forbad to close in slumber by our child?
I take the little murmurer that spoils my span of rest,
And feel it is a part of thee I lull upon my breast.
There's only one return I crave, I may not need it long,
And it may soothe thee when I'm where the wretched feel no wrong;
I ask not for a kinder tone, for thou wert ever kind;
I ask not for less frugal fare, my fare I do not mind

I ask not for attire more gay—if such as I have got
Suffice to make me fair to thee, for more I murmur not.
But I would ask some share of hours, that you on clubs bestow,
Of knowledge which you prize so much, might I not something know?
Subtract from meetings amongst men each eve an hour for me,
Make me companion of your soul, as I may safely be.
If you will read, I'll sit and work; then think when you're away,
Less tedious I shall find the time, dear William of your stay.
A meet companion soon I'll be for e'en your studious hours,
And teacher of those little ones, you call your cottage flowers;
And if we be not rich and great, we may be wise and kind,
And as my heart can warm your heart, so may my mind your mind."

COTTAGE COOKERY.

BY ESTHER COPLEY—TWELFTH ARTICLE.

FRUGALITY AND CHEAP COOKERY.

Milk and Porridge.—Milk, when it can be obtained is a most valuable article of family consumption, cheap, wholesome, nourishing, useful as food or drink, suitable for young and old, a meal of itself, and a pleasant accompaniment to other kinds of food. Good skim milk, that is, good enough to boil with rice and not curdle, is usually sold at a penny a quart, and with the single exception of bread, yields more nourishment than can be obtained at the same price from any other article. Even with bread there is an advantage in combining milk; a better meal will be obtained from one-pennyworth of milk and three-pennyworth of bread, than from four-pennyworth of bread without milk. Milk is better not boiled; or rather, the less it is boiled the better. If, therefore, it is to be used with flour, oatmeal, or any thickening that requires long boiling, it is better to boil the grain or meal in a little water, and then stir the milk to it. Grain and meal in general mix more smoothly and boil more quickly by being soaked some hours, a whole night if it suits, in cold water; no more water should be used than the grain will absorb (or suck up,) but if any should remain liquid, it is to be used in the boiling. The addition of milk improves every kind of porridge. Old peas, whether whole or split, are often boiled with salt pork or bacon; the liquor would be too salt to eat alone, but an equal quantity of milk softens and renders it comparatively mild and palateable. The addition of onions and carrots would be a farther improvement.

Milk may be preserved from turning sour by adding to it a very small quantity of carbonate of soda; a quarter of a small tea-spoonful is sufficient for a quart of milk. Fresh buttermilk, and cheese whey are both very wholesome drinks; some dairy-keepers freely give them to those who apply, others sell them at a very cheap rate.

Porridge is excellent and cheap food for children, and makes also a capital breakfast or supper for grown people, supposing them to have a more solid meal at midday. If work is so that they can take but a slight repast at noon, they will strive for a fuller meal either night or morning. The most economical way of making porridge is to steep the oatmeal (Scotch is the best) in cold water several hours, as much as will mix it into a smooth paste, and stir it into boiling water, which should be constantly stirred till it boils fast and thickens; this will be in five or six minutes after boiling, then let it stand aside full twenty minutes, where it will just keep boiling without danger of burning. By this method, the oatmeal fully expands, and a smaller quantity serves to thicken than if it were hastily boiled without soaking. One ounce of oatmeal will make one quart of porridge.

The 'Stirabout' commonly used in the northern parts, is made by very gradually shaking over and stirring into water boiling over the fire, as much oatmeal as will bring it to the thickness required. The oatmeal does not go so far on this plan, a larger quantity is required to thicken the same quantity of liquid. 'Brose' a com-

mon article ot diet in Scotland is not boiled at all, but is made by pouring boiling water on the oatmeal, and stirring briskly till it becomes thick and smooth. This uses still more meal, and is less digestible and nutritious than when the meal is thoroughly boiled. 'Fat brose' is the same thing, only with the addition of the skimmings of soup, or of liquor in which fat meat has been boiled. The fat is first stirred into the dry meal, then boiling liquor of some kind to bring it to a proper thickness.

Budram is another preparation of oats, much used among the labouring people in Wales and Scotland, but little known in England. It is eaten cold, and is a very pleasant summer food, and reckoned wholesome. For this purpose, the oats should be dried in a kiln, and in every respect prepared as for grinding ; but the rough husk only is to be removed. The grain may be left whole, or slightly bruised. This is generally preferred as a matter of taste, but it is more economical if coarsely ground. In a stone jar or earthen pan put two gallons of meal to four gallons of cold water, stir them well together, cover with a coarse cloth and stand in a warm place, such as a chimney corner, stirring occasionally. The mass will soon begin to ferment, and in four or five days become slightly acid. It is then fit for use. Strain off the liquor and boil it very fast, when near boiling it will run in lumps which must be made smooth by quick stirring, when it becomes thick pour it out into basins or other vessels which have been dipped in cold water. When cold it will turn out a stiff jelly, to be eaten with cold milk, salt, sugar, or treacle. A second portion of meal may be added to the remains of the first, and will be ripe rather earlier. To persons not accustomed to it, the acid might be disagreeable, and there certainly is a waste in straining off the liquor and leaving the remains. Where it is necessary to be very frugal, the following mode of preparing the food might be found to answer better. Soak any quantity of coarsely ground oatmeal in twice the quantity of water. Let it stand about twenty-four hours, stirring it occasionally. When it is about to be boiled, put the whole into the skillet or boiler without straining ; stir it as much as is necessary to keep it from burning or becoming lumpy ; and let it boil half-an-hour. If the husk is removed there is no need to strain it at all.

Flavourings.—Of all flavourings salt is the cheapest and the most wholesome. Children may be used to like their food flavoured with it just as well as with sugar. Fresh salt added to give a relish to food at the moment of eating, is altogether different, both in taste and wholesomeness from salted provisions, or salt added in the process of cooking. Salt is suitable to all kinds of porridge, whether with milk or otherwise. Some persons who wished to adopt the use of milk but found it disagree with them, have conquered the difficulty by adding a very little salt.

Sugar is an expensive article in a family ; but used in moderation by those who can afford it, it is not at all objectionable, although where it is found hard to obtain a sufficiency of solid food, sugar must be looked upon as something to be used with the greatest care. Sugared sop is a food often given to infants, and is unwholesome, as well as the most extravagant that could be devised. Milk would afford more nourishment and of a more suitable kind at half the cost. There are some families who never purchase a pound of fresh meat, because they cannot afford it ; yet who hardly limit their consumption of sugar to a pound a week. This must be looked upon as bad management.

Treacle costs less than sugar, and if managed with care, it may answer very well, either for spreading on bread or eating with porridge or plain pudding ; but a very little ought to serve, as it weighs heavy, and if used freely soon mounts up to an expensive article. Spice must be reckoned a mere luxury, however, as a very little is required, an ounce of ginger for grating, or pepper, or all-spice ready ground, will serve a long time. Those who like the taste of caraway seeds, if living in the country, should grow a few plants in their gardens. They are easily raised, and when once settled will take care of themselves and propagate for succeeding years without further trouble, as well as supply plenty of seeds for use. It is hardly necessary to mention garden herbs, parsley, thyme, mint, &c., those who grow them may find it a pleasant change some-

times to chop up a little with their porridge or potatos.

Tea, Coffee, Cocoa.—Tea has already been alluded to, and the use of British herbs suggested as a substitute. Strawberry leaves are sometimes used for this purpose and really answer very well. Those who can ill afford to buy foreign tea, may easily stock themselves from their own gardens thus—Gather strawberry leaves while young and tender, pick off the stalks, and dry them in an airy but shady place ; when a sufficient quantity is collected and the whole is perfectly dry, it may be kept in a canister or bottle, as other tea, and used in the same manner. The addition of young rue leaves, dried in the same way, not more than a twelfth part of the strawberry leaves, will give the flavour of green tea. Another substitute is hawthorn leaves, picked and dried, and mixed with one-tenth part each of balm and green sage. The following also is much recommended—Equal parts of agrimony, balm, tormentilla (or septfoil) and wild marjoram ; one-quarter the quantity of each of these, of red roses, cowslip flowers, and black currant leaves ; all to be cut small and mixed as they are gathered. When all are dried, store and use as above. These substitutes are at least worth a trial, where economy is an object.

Cocoa is cheaper than either coffee or tea, can be prepared with as little trouble, and is much more nourishing. The best method of preparing it, is to set it over the fire with cold water, stir it now and then, let it boil from five to ten minutes when all the cocoa will be dissolved and the liquor be smooth and rich. A tablespoonful will make a pint and a-half very good. One-third or half of this quantity should be milk, stirred in when the cocoa is done enough.

Meat.—Not to repeat what has been said in former articles, about the most profitable parts of meat, and the most economical methods of cooking them, only two remarks will be offered here with especial reference to those families who have but very little money to spend on meat. First—The internal parts of animals, some of which are thought little of, and sold at a very low rate for the food of dogs and cats, if properly cooked will make relishing and nourishing food for human beings. No person need be afraid to try this, or think it any degradation to eat that which has hitherto been put to an inferior purpose. Ox-cheeks and ox-tail soup, and ragouts, are now reckoned dainty dishes at the tables of the wealthy, the preparation of which is of itself a profitable trade in London and other large places. But time was when the ox-cheeks and ox-tails were reckoned mere offal, they were sent with the skins of the animals to the tanners and left to perish. What brought them into vogue? People who had very little money to spend on meat bought them, and showed what might be done by good cookery. They did it to get a little good soup which they must otherwise have done without ; others saw and tasted and learned wisdom. So true it is, that 'Necessity is the mother of Invention.' The tripe of beef, and the chitterlings of pork are much used ; but those of other animals are scarcely noticed. The calf's chitterlings are sometimes cleaned as skins for large sausages, but with this exception, the tripe and chitterlings of veal, mutton, and lamb, are made no use of for human food. They should be obtained immediately the animal is killed, scoured many times in salt and water, and put in soak, the water being frequently changed for twenty-four hours. If a brook or running stream is near, the business is best managed by having a tub or pan close by it, in which to salt, scrub, and scrape the tripe or chitterlings ; then rinse in the stream. This must be repeated till they are quite white and free from smell, after which boil gently till quite tender ; the length of time required depends on the size of the animal. The chitterlings are generally plaited by drawing one loop through another: a large quantity of water should be allowed for boiling ; a cake of fat, good and useful for many purposes in cookery, will rise to the top. Even the liquor is much better than water for peas-soup. Some people boil in it parsley, onions, turnips, carrots, or parsnips with rice or peas, and so make soup of it at once. If plain boiled, a little vinegar is a good sauce for tripe or chitterlings, either of which if left cold will keep a day or two, and may be re-warmed, either by broiling, or in a little of the liquor, or with part milk, and a few onions. The trouble of these preparations

is not great, and sixpence or less would purchase enough for two savoury dinners for six or seven people: surely worth the notice of those who say they scarcely know the taste of fresh meat. Ox-palates are cleaned by rubbing them over with salt, which after about half-an-hour, is to be washed off: boil gently till the skin will come off easily. Cow-heels, and sheep's trotters, are cleaned in the same way as calf's feet. All of these are sold cheap, and are very nourishing; the liquor in which they are boiled is serviceable, and the fat which forms at top, excellent in making pies or dumplings. A little vinegar is sometimes put into the boil, or any kind of vegetables, or thickening, as mentioned above. The money that would buy two pounds of chops, a meal for three or four persons, if laid out on the articles here spoken of, would produce an ample meal for twelve or more.

Sheep's head has been recommended elsewhere, *Fam. Econ.*, vol. i. p. 146.

Liver.—A bullock's liver in particular is generally despised, as coarse, hard, and dry; but to preserve it from becoming hard, it must be done through without being suffered to boil. Take a piece of liver of any size, say two or three pounds, it should be in one lump, either put it in the side oven of a Yorkshire grate, or in a frying-pan over the fire with a thin rasher or two of bacon, or salt pork, or not having either, a little dripping or lard: let it brown all round. Then set aside the liver and bacon, and with a pint and a-half of broth or water, rinse out the frying-pan, or the dish in which the liver was browned. Set this liquor over the fire in a saucepan with a quarter-of-a pound of rice, a few onions, and sweet herbs, a carrot or turnip or two cut in slices, or a few slices of vegetable-marrow, or Jerusalem artichokes (several things are mentioned, not as being all necessary, but that such as are most at hand may be made use of.) Simmer the whole gently till the rice and vegetables are tender and the liquor rich, then put in the bacon or pork and the liver, cover the saucepan and set it aside on the hob, to keep quite hot without coming to boil. In about a quarter-of-an-hour, turn the liver in the saucepan that both sides may be equally done, let it stand another quarter-of-an-hour, not longer, then take up all together, and it will be found a very savoury dish.

Bullock's liver cut in slices, with a little pickled pork, and chopped parsley, or an onion or two, makes a very good pudding (see *Fam. Econ.*, vol. i., p. 184.) A little pepper should be added, but the pork will make it sufficiently salt.

Kidney, may be stewed in the same manner as liver, only instead of having it in one lump, cut it up in slices as thick as a penny piece with a little dripping or lard; brown them in a frying-pan, and season with pepper and salt. Take out the pieces of kidney, rinse out the frying-pan with no more water than is required to stew the vegetables, and rice if it be used, or the thickening may be oatmeal or flour. When all is tender and the gravy thick, put in the fried kidney; a few minutes will make it hot through, there is no need to turn it, and it should not be suffered to boil. Or kidney makes a good potato-pie with or without the addition of a slice or two of pork or bacon (*Fam. Econ.*, vol. i. p. 185.)

Melts.—Many people use a melt for making gravy, and then throw it away, but to others it is an agreeable article of diet. A melt is prepared by soaking three or four hours in salt and water with a little vinegar, then wipe dry, double the melt and sew it up; or if two melts, sew them together with a layer of oatmeal and seasoning, either sage and onions, or parsley and thyme, and pepper between them. Lay outside a thin rasher of bacon or fat pork, and bake one hour in the side oven of a Yorkshire grate, or not having that, in a baker's oven, or in front of the fire, or at top in a frying-pan; or, they may be done in a potato-pie in the same way as kidneys. These are specimens of what may be done with what many people lightly esteem. The cottage housewife who successfully tries these experiments, will be sure to find out others by which the living of her family may be improved. Ever so small a portion of animal food is an improvement to a vegetable dish: thus, a very capital stew may be made by baking one-pound each of veal and rice, and three or four onions in three quarts of water; but though not equally rich and delicate, the dish will not be despicable, if instead of one pound of prime veal, which would cost 7*d.* or 8*d.*, there

should be half or even a quarter-of-a pound of fat pork, which would cost 2*d.* or 1*d.* A potato-pie of six-pounds, should have one-pound or more of meat; but if no meat is to be had, a red herring or two will give a relish ; or an ounce of cheese grated up among potatos, or rice, makes a pleasant change, and is better economy than making a dinner of bread and cheese. A very little meat gives a relish to stewed cabbage ; thus, take a large summer cabbage, trim off the loose outside leaves, boil the cabbage a few minutes with a little salt in the water, then drain it dry and carefully cut a hole in the middle, into which thrust a few bits of cold meat with pepper and salt and chopped herbs, or a little bacon or pickled pork with herbs and pepper only, press on the stem that was cut out, to make a sort of lid to the whole, tie it securely on and let it stew, covered close, for an hour and-a-half or two hours.

The common vegetable-stew, called a Devonshire-stew, is greatly improved by the addition of ever so small a portion of meat, bacon, or herring. It would be excellent with bullock's kidney, mentioned above. It is made with vegetables left cold, or partly boiled on purpose, the quantity of potato, parsnip, or beet-root, should be double that of either of the other vegetables, viz. :—Onions, cabbage, or greens of any sort, carrot, or any other that can be had. Mix them together, season with pepper and salt, set over the fire with two ounces of dripping and a teacupful of water or broth ; when the dripping is all melted, the liquor absorbed, and the vegetables hot through they are done. If prepared in the manner suggested for kidney and liver, no other dripping will be required than that in which the meat was browned.

People in towns, and sometimes people in the country too, say they never have any vegetables, except potatos ; some cannot afford to buy them, others think it too much trouble to cook them. It is a pity it should be so. People may easily get the knack of doing things, and then it is no trouble, or at least not worth thinking a trouble, if it makes the more expensive articles of food go farther and helps the family to live better than they otherwise would do. Those who have no garden should not forget at the proper seasons certain things that may be had for the gathering. Young nettle-tops in spring are delicious boiled as greens: hop-tops gathered young are as good as asparagus : turnip-tops, any decent person who asks civilly and engages to gather them without injuring the roots may generally have leave to do so, they are among the most delicious and wholesome of vegetables. The cardoon or thistle head is as good as an artichoke. When people take a walk they might as well think of such things.

Blackberries have been mentioned as an article for sale, or for present use in the working-man's family, they also make a cheap and useful preserve ; which, when good management is practised, may more than save its cost in cheese or butter. The easiest way of doing them, is to boil or bake the fruit, (which must be gathered in dry weather and should be used fresh) with half its weight of coarse sugar. The jams should be kept boiling three-quarters of an hour.

One thing more : a little vinegar gives a relish to meat that would otherwise be insipid, and corrects the grossness of such as is too fat. A few young nasturtium seeds being steeped in cold vinegar, is the cheapest and simplest of all pickles, one that keeps as long as any, and is certainly as wholesome as any, a cheap and harmless luxury on a poor man's table ; but the cost of the vinegar often checks even those who have a garden and plenty of nasturtiums growing in it. Well, it is easy to a make little good vinegar at home, it may be done in a common black glass bottle or two. The best time is in spring, as the heat of summer is wanted to ripen it. For as many black bottles (the bottles used for wine,) as are required to be filled, allow half-a-pound of coarse brown sugar and a pint and-a-half of boiling water each, and a tea-spoonful of solid yeast. Pour the boiling water over the sugar, stir it well, and when all but cold stir the yeast to it, dipping up a little and pouring it back to make it well mix ; cover it up and set it in a warm place to work ; a chimney corner is the best, but not too near a fierce fire. Let it work two or three days, then strain for bottling. The bottles must be perfectly clean and dry, and in each should be put a wine-glassful of good vinegar. Tie over the tops

with a bit of thin muslin or gauze, or paper with holes pricked in it, so as to admit air, and yet keep out flies, &c. The bottles must stand in a very warm place, either near a fire, or in the heat of the sun, but sheltered from rain by a south window, or a skylight, or under slates in a sunny aspect. In a few weeks this will be capital vinegar. When the bottles are emptied, they may be filled again without washing, and it will not be necessary to put bought vinegar in them, what hangs about will be sufficient to forward the new. The cost will be $2\frac{1}{2}d.$ or $3d.$ a bottle; that of good bought vinegar would be from $7\frac{1}{2}d.$ to $9d.$

To make a Christmas Pudding.—Cut some slices of stale bread very thin; cut off the crust, and put a layer in the bottom of a baking-dish; spread it over with some of your mince-pie meat; then more bread and mince-meat till the dish is full. Then pour over it milk, with two or three eggs beaten up in it, till the bread is saturated, and bake it an hour and-a-half. A paste may be placed round the dish, if desired.

ENIGMA.

Though young, I am a character well known to all the Queen's subjects.

I represent majesty, and am more nearly allied to royalty than Prince Albert himself.

However high and dignified the rank and title of any person in the kingdom, my situation is above them all.

Should Queen Victoria herself require my service, she would place me at her right hand.

I was created by the highest peers and greatest people of the realm, wear a crown, and am continually in office; yet I never issue a command, though I frequently authorize others to do so.

Though of an erratic disposition, and have an unlimited and unrestricted range through the British dominions, I am continually in one or other of her Majesty's prisons, and only one person has the power of liberating me.

I am a great traveller, though I have neither arms nor legs. I am of a peaceable disposition, and yet I have more scars on my face than the Duke of Wellington.

I have only one rival, and though occasionally he usurps my prerogative, he is but a base substitute, and never takes my place.

I was born black, although now of a ruddy complexion, yet when overburdened I become blue in the face.

The poor can buy me, but the rich may not sell me.

Under my protection the most ardent lover can successfully urge his suit, and the most timid maiden returns his vows.

I am so much esteemed that not a day passes but I am asked for, yet there is scarcely a tongue in England that is not raised against me.

Though much sought after, my acquaintance generally cut me when they become known to me.

I grow older every day, but I shall never become gray-headed, even if I have no recourse to Macassar Oil.

Though I never learned the alphabet, I cannot be called unlettered.

My company is not very select; I am as well known to the veriest rascal as I am to goodness and virtue. I assist in carrying out and concealing the basest schemes. Mr. Smith O'Brien himself might not have been in prison but for my assistance.

I suppose I must be called a Liberal, both in politics and religion, as I favour Tories, Radicals, Churchmen high and low, and Dissenters equally; and withal it must be admitted that I am a loyal subject, as I assist in supporting her Majesty's Government.

I must not conceal another failing: for a small sum I give my countenance to the most nefarious and wicked schemes, and closely connect myself with proceedings which, under a fair outside, conceal the most artful and base transactions.

Not to make myself, however, worse than I am, I must add that I am faithful in my services, and am a close adherent to those I once join and assist.

If those hints will not suffice, watch every one that approaches you narrowly, for there are few in a house who do not wish to have a frequent visit from me.

VARIETIES.

THE TWO MISERS.—A miser living in Kufa had heard that in Bassora also there dwelt a miser—more miserly than himself, to whom he might go to school, and from whom he might learn much. He forthwith journeyed thither, and presented himself to the great master as an humble commencer in the art of avarice, anxious to learn, and under him to become a student. 'Welcome!' said the miser of Bassora; 'we will straight go into the market to make some purchase.' They went to the baker. 'Hast thou good bread?' 'Good indeed, my masters; and fresh and soft as butter.' 'Mark this, friend,' said the man of Bassora to the one of Kufa, 'butter is compared with bread as being the better of the two. As we can only consume a small quantity of that, it will also be the cheaper; and we shall therefore act more wisely, and more savingly too, in being satisfied with butter.' They then went to the butter merchant, and asked if he had good butter. 'Good, indeed, and flavoury and fresh as the finest olive oil,' was the answer. 'Mark this, also,' said the host to his guest: 'oil is compared with the very best butter, and, therefore, by much ought to be preferred to the latter.' They next went to the oil vendor. 'Have you good oil?' 'The very best quality—white and transparent as water,' was the reply. 'Mark that, too,' said the miser of Bassora to the one of Kufa, 'by this rule water is the very best: now, at home, I have a pailful, and most hospitably therewith will I entertain you.' And, indeed, on their return, nothing but water did he place before his guest, because they had learned that water was better than oil, oil better than butter, butter better than bread. 'God be praised!' said the miser of Kufa, 'I have not journeyed this long distance in vain.' —*Fairy Tales of all Nations.*

ANECDOTE OF WASHINGTON.—When George Washington was about six years of age, some one made him a present of a hatchet, of which being, like most children, immoderately fond, he went about chopping every thing in his way, and going into the garden, he unluckily tried its edge on an English cherry-tree, which he barked so terribly as to leave very little hopes of its recovery. The next morning his father saw the tree, which was a great favourite, in that condition, and inquired who had done the mischief, declaring he would not have taken five guineas for the tree; but nobody could inform him. Presently after, however, George came, with the hatchet in his hand, into the place where his father was, who immediately suspected him to be the culprit. 'George,' said the old gentleman, 'do you know who killed that beautiful little cherry-tree yonder in the garden?' The child hesitated a moment, and then nobly replied, 'I can't tell a lie, papa;—you know I can't tell a lie: I did cut it with my hatchet.' 'Run to my arms, my boy,' exclaimed the father;—'run to my arms! Glad am I, George, that you killed my tree; for you have paid me for it a thousand-fold! Such an act of heroism in my son is of more worth than a thousand cherry-trees, though blossomed with silver, and their fruits of gold.'

ELBOW-ROOM FOR EMIGRANTS.—The unallotted lands still remaining in the United States of America are,—Ohio, 875,465 acres; Indiana, 5,572,645; Illinois, 15,693,070; Michigan, 25,097,296; Wisconsin, 28,863,763; Iowa, 29,808,308; Missouri, 29,766,740; Arkansas, 27,669 207; Louisiana, 28,677,775; Mississippi, 11,815,040; Alabama, 17,516,346; Florida, 17,516,346; total, 238,872,007 acres. The total number of acres in Great Britain is 57,952,489.

MONARCHS OF ENGLAND FROM THE CONQUEST.

First, William the Norman, then William his son;
Henry, Stephen, and Henry, then Richard and John;
Next, Henry the Third; Edwards, one, two, and three;
And again, after Richard, three Henrys we see;
Two Edwards, third Richard, if rightly I guess;
Two Henrys, sixth Edward, Queens Mary and Bess,
Then Jamie the Scot, then Charles whom they slew,
And then followed Cromwell, another Charles too;
Next James, called the Second, ascended the throne;
Then William and Mary together came on;
Till Anne, Georges four, and fourth William all past,
God sent us Victoria, the loved and the last.